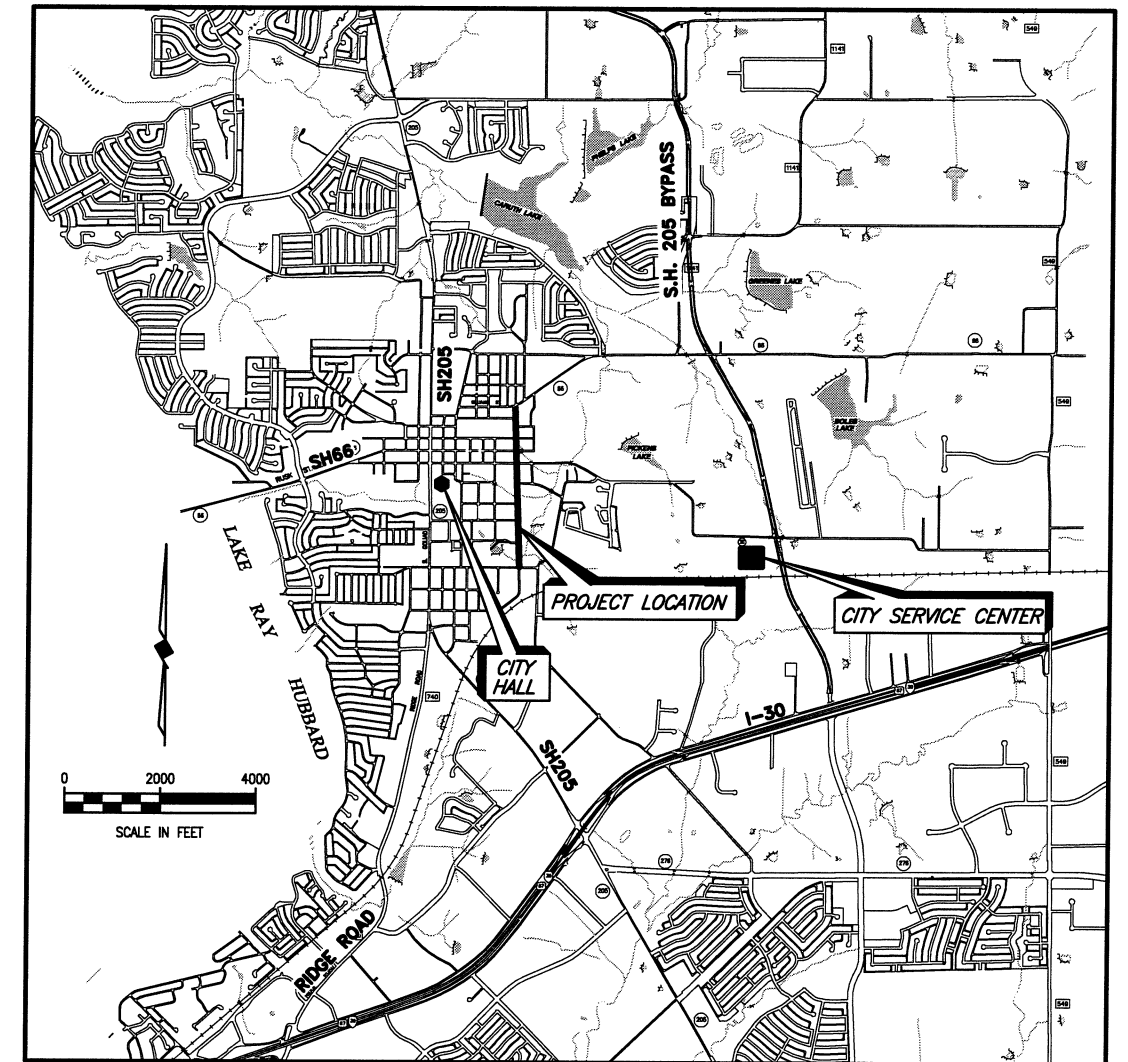


CITY OF ROCKWALL, TEXAS

CONSTRUCTION PLANS FOR

INSTALLATION OF CLARK STREET LIGHTS (BOYDSTUN TO WILLIAMS)



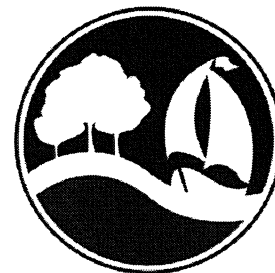
LOCATION MAP

SHEET INDEX

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
1	COVER SHEET
C1	POLE LOCATIONS
C2	POLE LOCATIONS
C3	POLE LOCATIONS
C4	POLE LOCATIONS / GENERAL NOTES
E1	ELECTRICAL SITE PLAN
E2	ELECTRICAL ONE LINE DIAGRAM & SCHEMATICS
E3	ELECTRICAL DETAILS SHEET I
E4	ELECTRICAL DETAILS SHEET II

COUNCIL MEMBERS

- BILL CECIL, MAYOR
- CLIFF SEVIER, MAYOR PRO-TEM
- DAVID SWEET
- GLEN FARRIS
- MARK RUSSO
- MATT SCOTT
- MARGO NIELSON



CITY MANAGER

JULIE COUCH

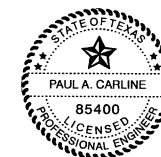
ASSISTANT CITY MANAGER

RICHARD CROWLEY

CITY ENGINEER

CHUCK TODD, P.E.

BIRKHOFF, HENDRICKS & CONWAY, L.L.P.
 PROFESSIONAL ENGINEERS
 Texas Firm F526
 Dallas, Texas



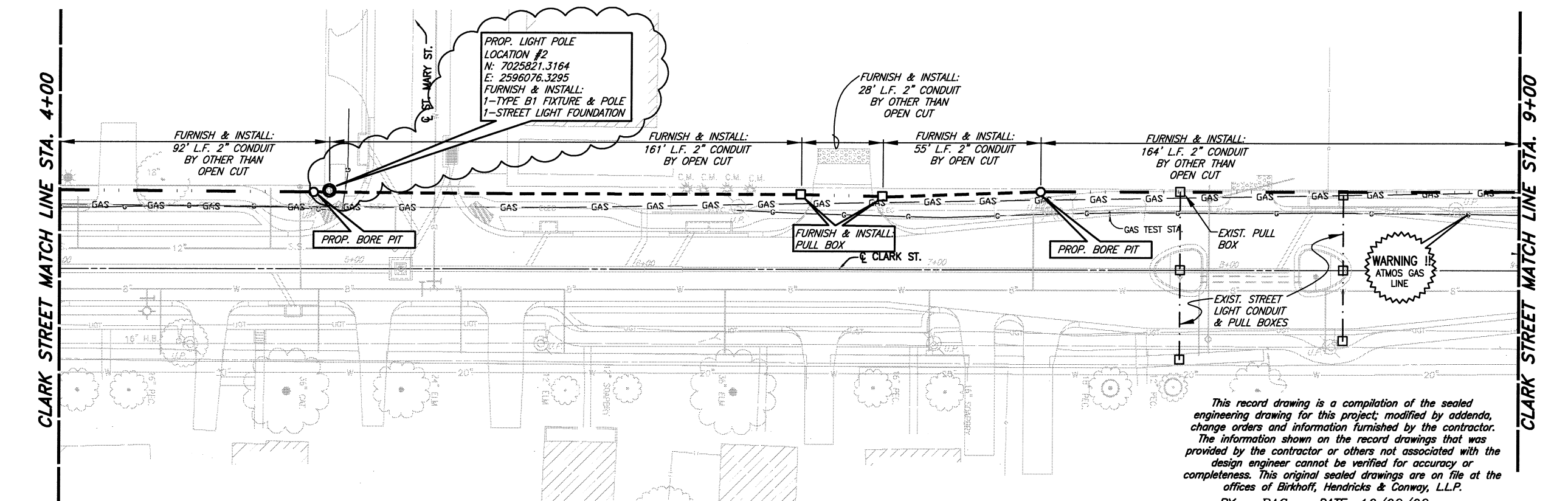
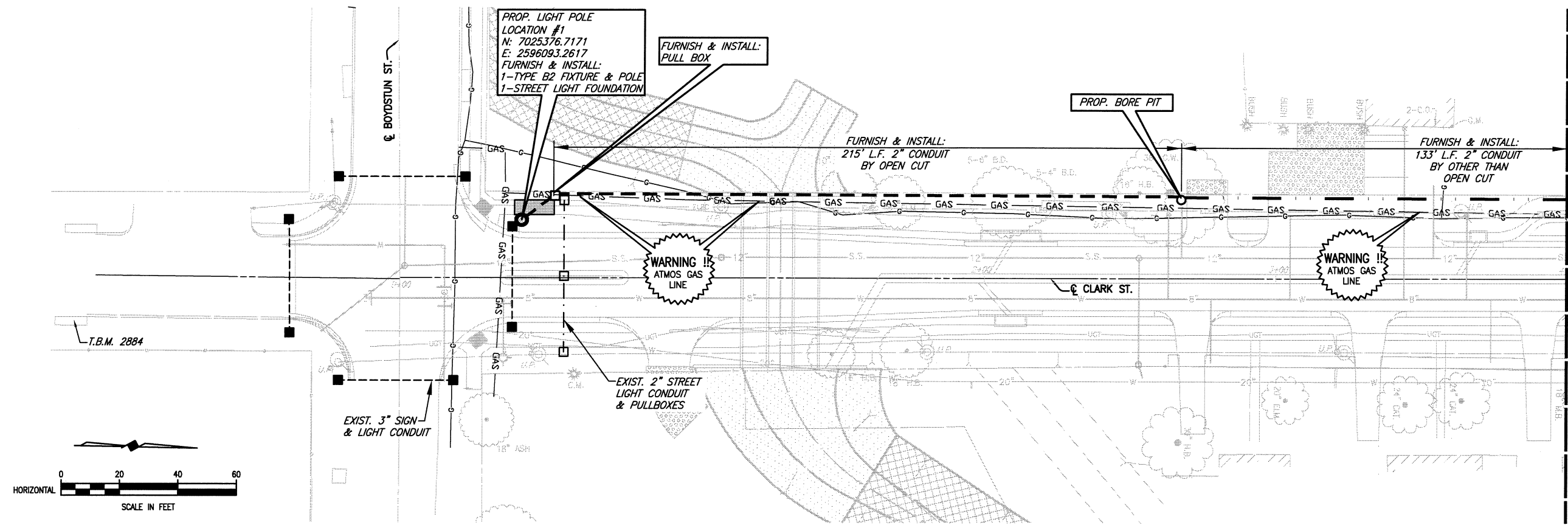
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DATE: 10/10/09

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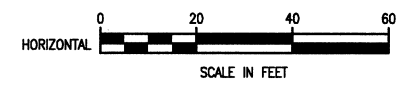
October, 2009

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- LEGEND**
- 2" PVC CONDUIT BY OPEN CUT
 - - - 2" PVC CONDUIT BY OTHER THAN OPEN CUT
 - REMOVE & REPLACE REINFORCED CONCRETE SIDEWALK INCLUDING SAWCUT (B SY THIS SHEET)

- NOTES:**
1. DEPTH OF ELECTRICAL CONDUIT SHALL BE 3 FEET MINIMUM AND 5' MAXIMUM UNLESS OTHERWISE IN CONFLICT WITH EXISTING UTILITY.
 2. TOP OF PROPOSED PULL BOXES, WHEN CONSTRUCTED IN EXISTING SIDEWALKS, SHALL BE FLUSH WITH EXISTING SIDEWALK ELEVATIONS.
 3. ALL CONDUITS WERE INSTALLED BY DIRECTIONAL DRILLING (OTHER THAN OPEN CUT) TYPICAL ALL SHEETS.

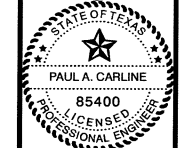


T.B.M. 2884
SQ. CUT IN INLET EAST OF CLARK ST. & SOUTH OF BOYDSTUN ST.
N:7025217.8375
E:2596128.8878
EL=537.38

T.B.M. 2176
SQ. CUT ON WEST HEADWALL OF CLARK ST. & NORTH OF ST. MARY ST.
N:7025946.3986
E:2596088.3176
EL=533.99

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BIRKHOFF, HENDRICKS & CONWAY, L.L.P.
PROFESSIONAL ENGINEERS
Texas Firm F526
11910 Greenville Ave., Suite 600
Dallas, Texas 75243 (214) 361-7900

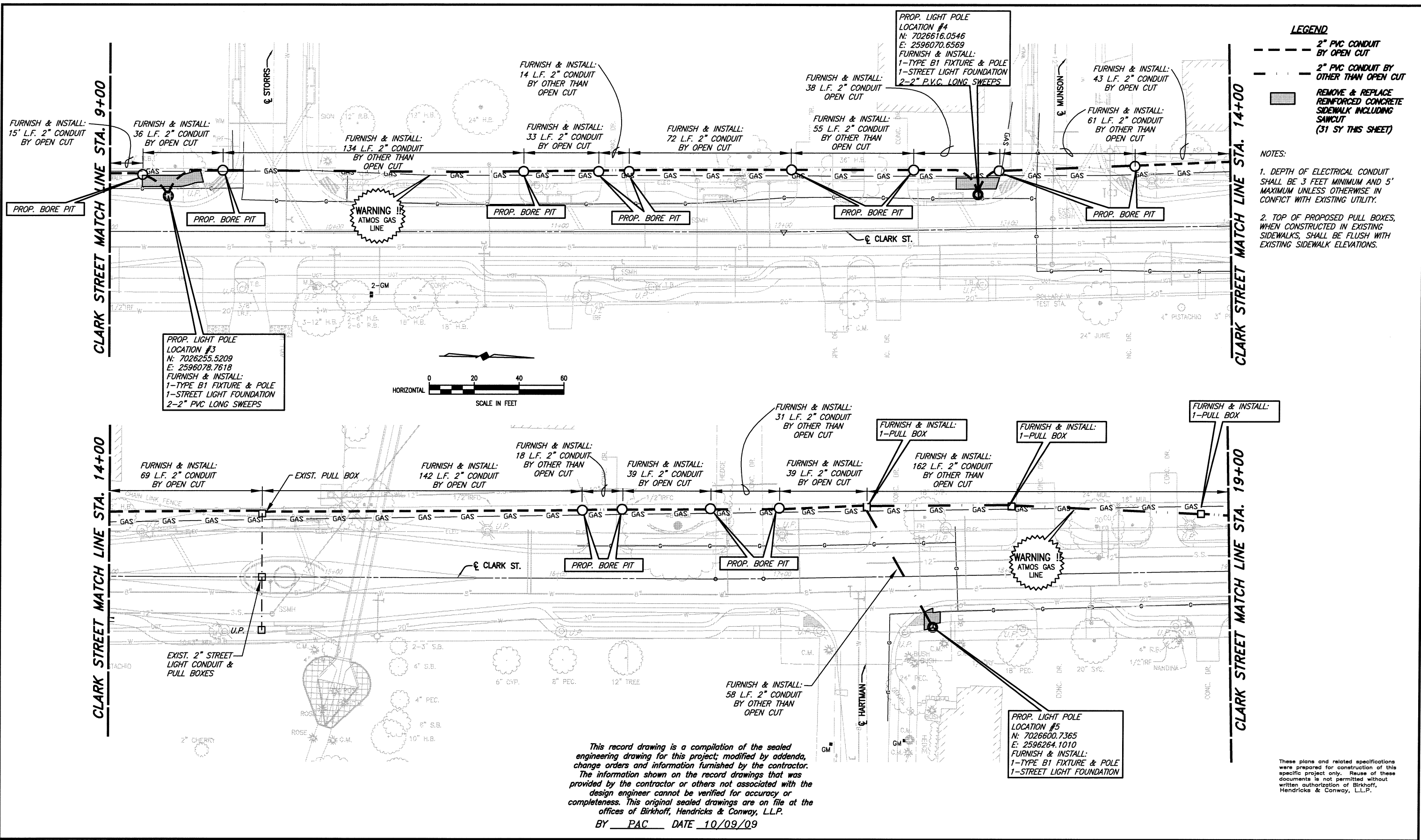


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DATE: 10/09/09

CITY OF ROCKWALL, TEXAS
CLARK STREET LIGHTS
POLE & CONDUIT LOCATIONS

BHC PROJECT NO. 2008-116
April, 2009
SHEET NO. **C1**

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 PROFESSIONAL ENGINEERS
 Texas Firm F526
 11910 Greenville Ave., Suite 600
 Dallas, Texas 75243 (214) 361-7900

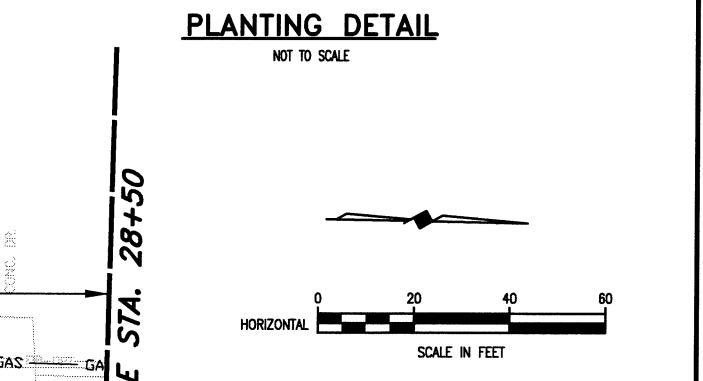
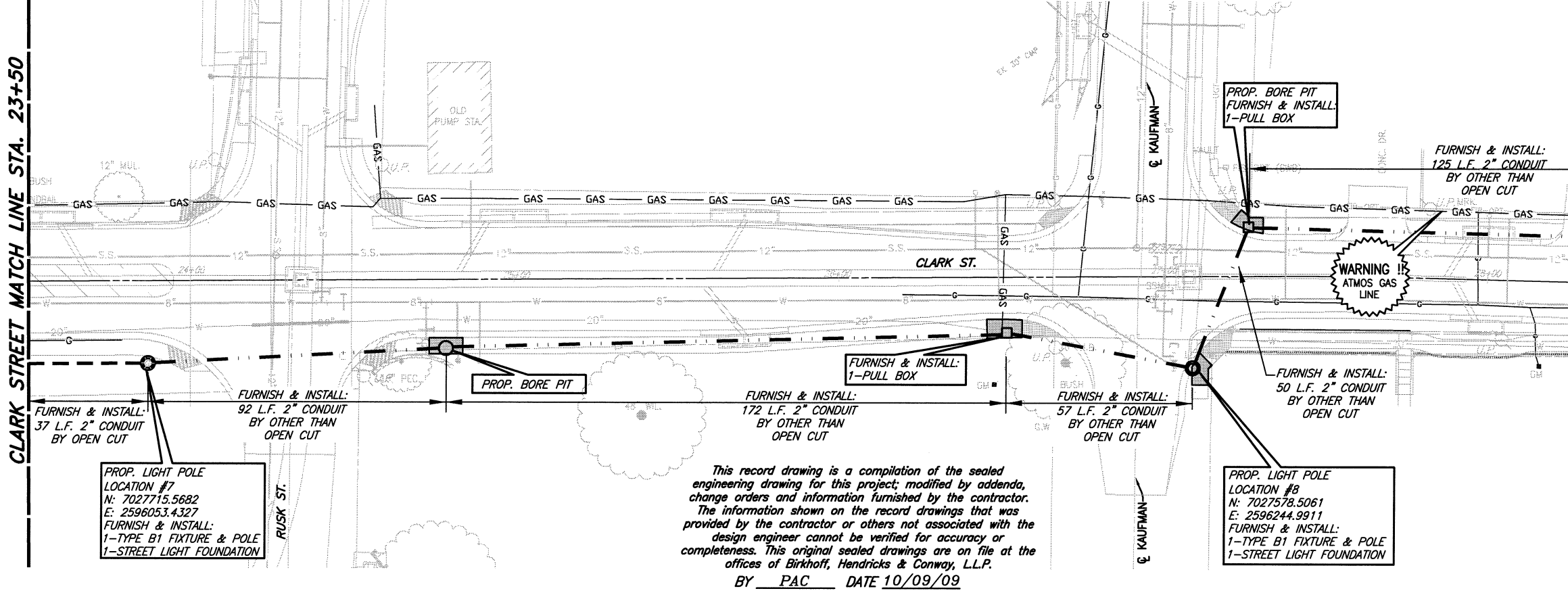
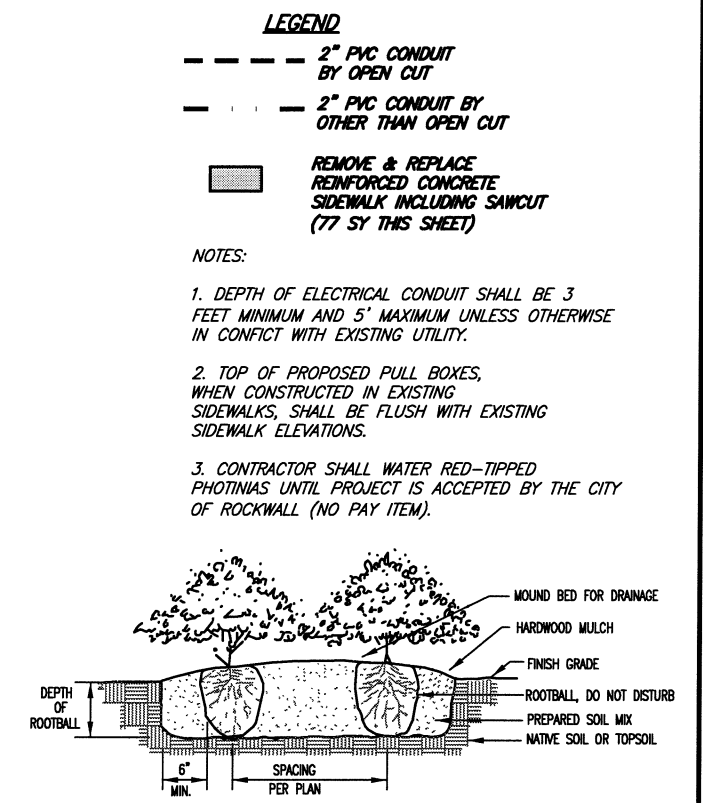
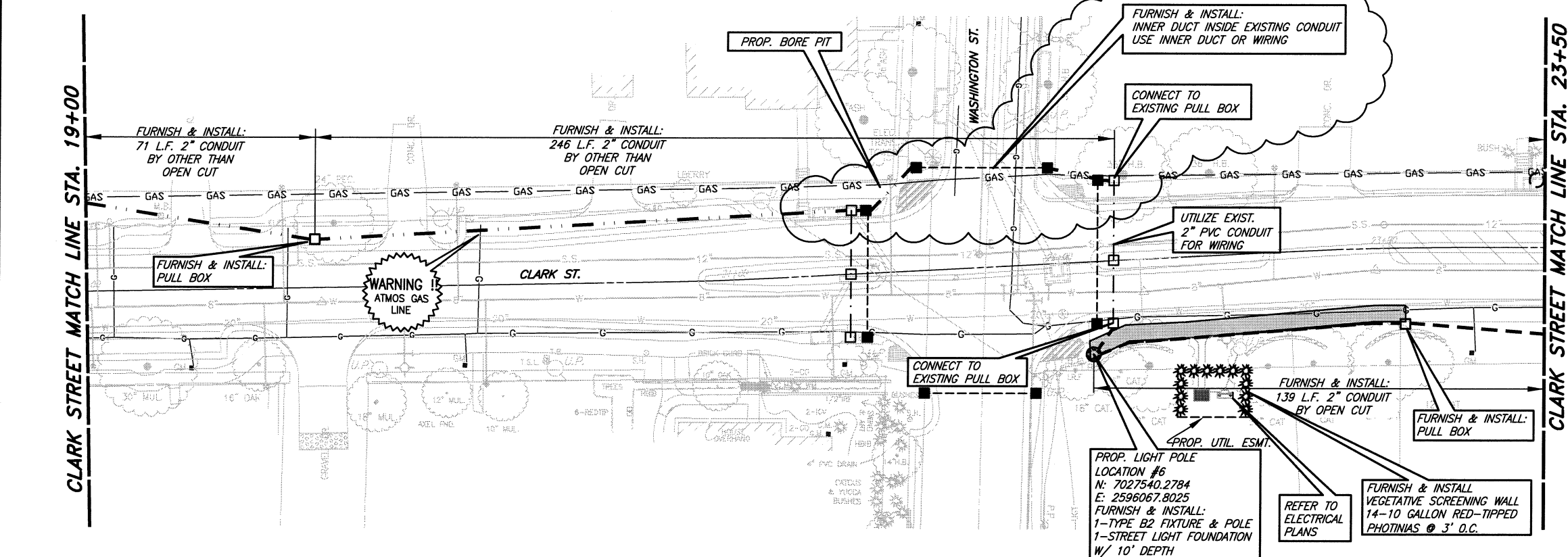


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CITY OF ROCKWALL, TEXAS
 CLARK STREET LIGHTS
 POLE & CONDUIT LOCATIONS

BHC PROJECT NO. 2008-116
 April, 2009
 SHEET NO. C2

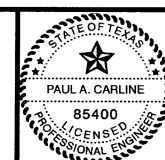
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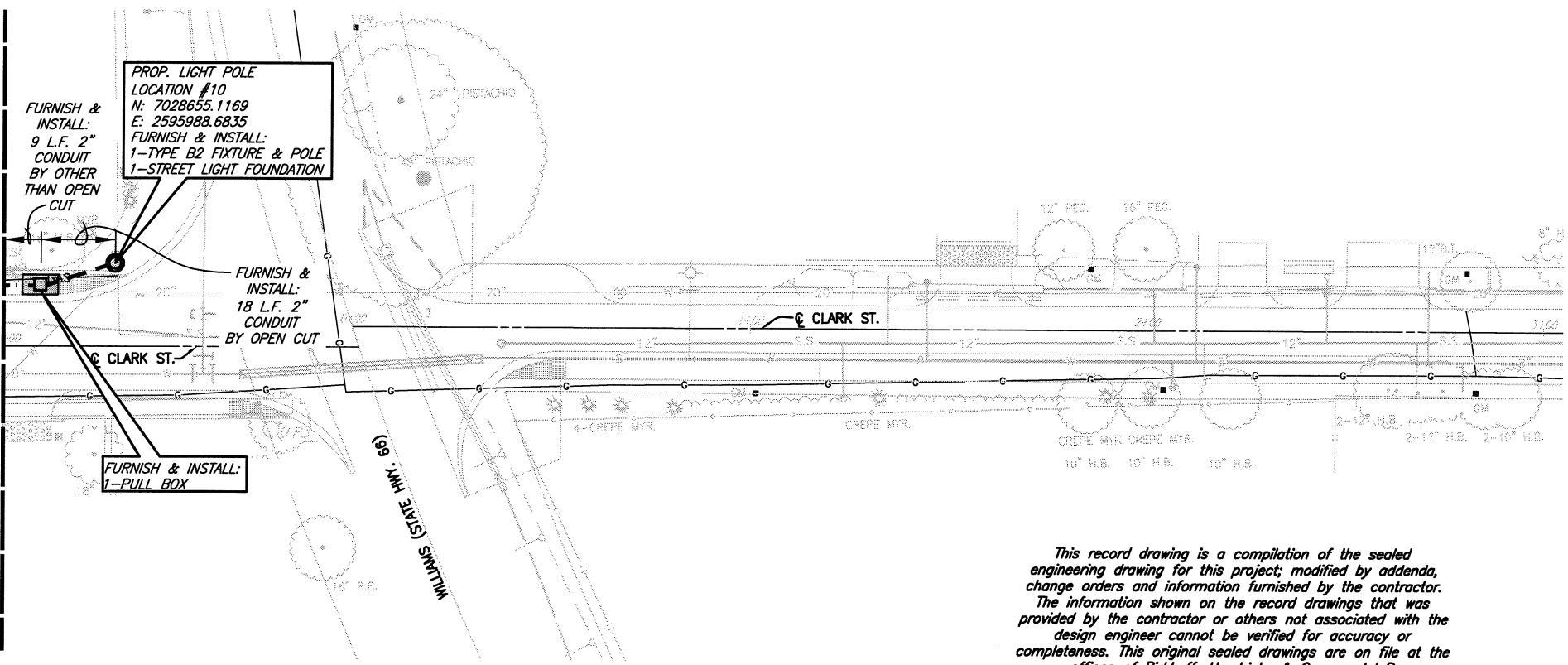
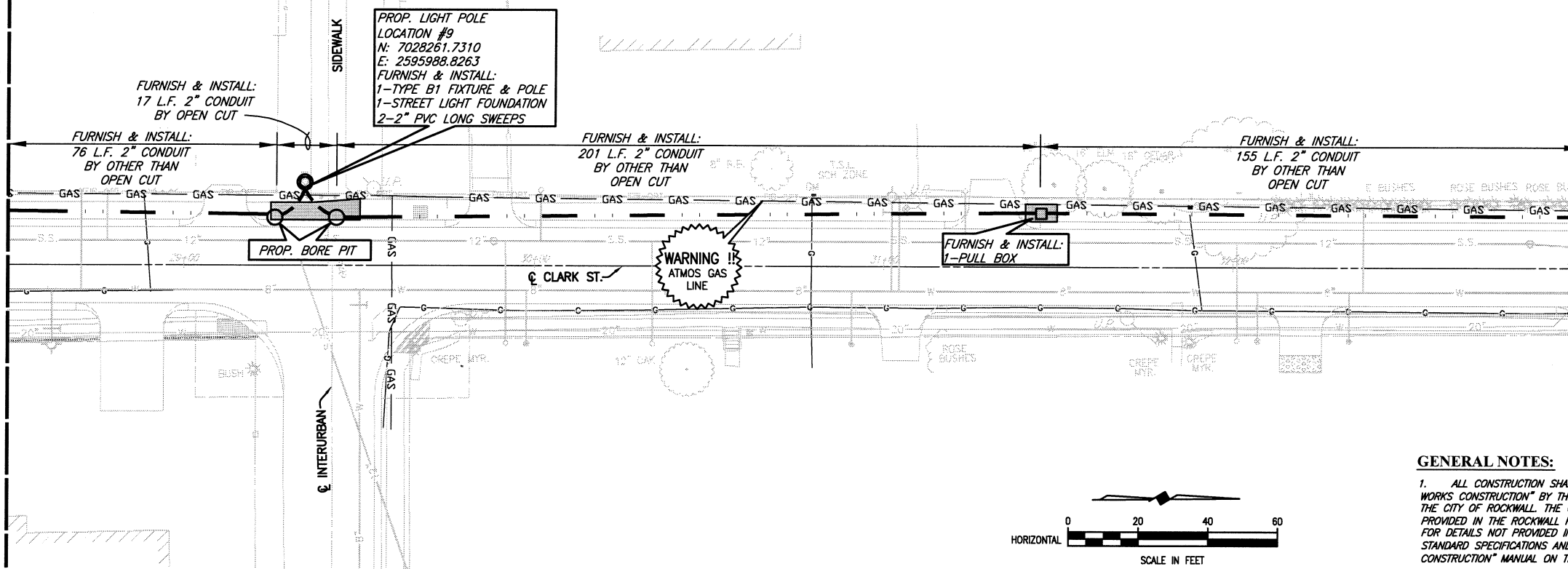
CITY OF ROCKWALL, TEXAS
 CLARK STREET LIGHTS
 POLE & CONDUIT LOCATIONS

BHC PROJECT NO. 2008-116
 April, 2009
 SHEET NO. C3

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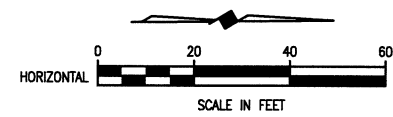
CLARK STREET MATCH LINE STA. 28+50

CLARK STREET MATCH LINE STA. 33+00



- LEGEND**
- 2" PVC CONDUIT BY OPEN CUT
 - - - 2" PVC CONDUIT BY OTHER THAN OPEN CUT
 - ▭ REMOVE & REPLACE REINFORCED CONCRETE SIDEWALK INCLUDING SAWCUT (25 SY THIS SHEET)

- NOTES:**
1. DEPTH OF ELECTRICAL CONDUIT SHALL BE 3 FEET MINIMUM AND 5' MAXIMUM UNLESS OTHERWISE IN CONFLICT WITH EXISTING UTILITY.
 2. TOP OF PROPOSED PULL BOXES, WHEN CONSTRUCTED IN EXISTING SIDEWALKS, SHALL BE FLUSH WITH EXISTING SIDEWALK ELEVATIONS.

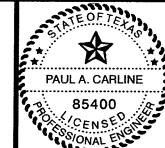


GENERAL NOTES:

1. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" BY THE NORTH TEXAS CENTRAL COUNCIL OF GOVERNMENTS, 3RD EDITION AS AMENDED BY THE CITY OF ROCKWALL. THE CONTRACTOR SHALL REFERENCE THE LATEST CITY OF ROCKWALL STANDARD DETAILS PROVIDED IN THE ROCKWALL PUBLIC WORKS DEPARTMENTS "STANDARDS OF DESIGN AND CONSTRUCTION" MANUAL FOR DETAILS NOT PROVIDED IN THESE PLANS. THE CONTRACTOR SHALL POSSESS ONE SET OF THE NCTCOG STANDARD SPECIFICATIONS AND DETAILS AND THE CITY OF ROCKWALL'S "STANDARDS OF DESIGN AND CONSTRUCTION" MANUAL ON THE PROJECT SITE AT ALL TIMES.
2. REASONABLE EFFORT HAS BEEN MADE TO SHOW THE LOCATION OF ALL KNOWN UNDERGROUND UTILITIES AND SERVICE LINES. HOWEVER, THE OWNER & ENGINEER ASSUMES NO RESPONSIBILITY FOR FAILURE TO SHOW ANY OR ALL EXISTING SUBSURFACE UTILITIES OR UTILITY LINES, OR TO SHOW THEM IN THEIR EXACT LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES, SERVICE LINES OR THE LIKE, WHICH ARE CROSSED OR EXPOSED BY THE CONSTRUCTION OPERATION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SERVICE LINES CROSSED OR EXPOSED BY CONSTRUCTION OPERATIONS. WHERE EXISTING SERVICE LINES ARE CUT, BROKEN OR DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY REPLACE THE SERVICE LINE WITH SAME TYPE OF ORIGINAL CONSTRUCTION OR BETTER.
4. CONTRACTOR SHALL SUPPORT UTILITIES WHERE CROSSING WITH PROPOSED STORM SEWERS, WATER LINES AND SANITARY SEWERS. METHOD OF SUPPORT SHALL BE PROVIDED TO THE OWNER 24 HOURS PRIOR TO CROSSING.
5. THE LOCATION OF ALL ATMOS GAS LINES, SBC AND TXU ELECTRIC UNDERGROUND PHONE LINES IN THESE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL CONTACT ATMOS, TXU AND SBC TO VERIFY LOCATION AND DEPTH OF ALL EXISTING GAS, ELECTRIC AND PHONE LINES PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL REPLACE ALL SHRUBS, PLANTS, TREES ETC. THAT ARE REMOVED FOR CONVENIENCE OF CONSTRUCTION AT HIS EXPENSE. NEW SHRUBS, PLANTS, TREES, ETC. SHALL BE EQUAL TO OR BETTER THAN THE EXISTING ONES OR MEET THE NEEDS AND APPROVAL OF THE PROPERTY OWNER AND THE CITY.
7. THE CONTRACTOR SHALL PROTECT ALL UNDERGROUND SPRINKLER SYSTEMS. AN IRRIGATOR LICENSED IN THE STATE OF TEXAS SHALL REPAIR ALL DAMAGE CAUSED BY CONSTRUCTION WITHIN 48 HOURS. ALL COSTS SHALL BE BORNE BY THE CONTRACTOR.
8. THE CONTRACTOR SHALL NOT DISPOSE OF WASTE AND ANY MATERIALS INTO STREAMS OR WATERWAYS. THE CONTRACTOR SHALL SECURE ALL EXCAVATION AT THE END OF EACH DAY AND DISPOSE OF ALL EXCESS MATERIALS. DISPOSAL SITE SHALL BE DOCUMENTED AND PROVIDED TO THE CITY.
9. CONTRACTOR SHALL GRADE GROUND DISTURBED BY CONSTRUCTION TO PREVENT PONDING OF STORM WATER RUNOFF. TOPSOIL SHALL BE REPLACED TO A MINIMUM DEPTH OF TOPSOIL SHALL BE STOCKPILED AND REPLACED TO A MINIMUM DEPTH OF 6-INCHES AND DISC HARROWED TO A MINIMUM DEPTH OF 4-INCHES (NO PAY ITEM). CONTRACTOR SHALL REPLACE GRASS AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WITH SOLID SOD SODDED AREAS SHALL BE WATERED AND MAINTAINED FOR A PERIOD OF NO LESS THAN 72 HOURS. EACH DAY THE CONTRACTOR SHALL WATER THE AREAS UNTIL THE PROPERTY OWNER ASSUMES RESPONSIBILITY OF SODDED AREAS. THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNER IN WRITING WITH A COPY SENT TO THE CITY OF ROCKWALL THAT THEY ARE TO ASSUME RESPONSIBILITY OF MAINTENANCE OF THE SODDED AREAS AT A SPECIFIED TIME AND DATE.
10. CONTRACTOR SHALL REPLACE ANY TREES REMOVED OR DESTROYED THAT ARE NOT SHOWN IN THESE PLANS TO BE REMOVED OR SHALL PAY FAIR MARKET VALUE TO OWNER AS DETERMINED BY THE OWNER.
11. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE ALL NECESSARY TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (PART IV).
12. THE CONTRACTOR SHALL PROVIDE ACCESS AT ALL TIMES DURING EACH PHASE OF CONSTRUCTION TO ALL LOCAL RESIDENTS, BUSINESSES, MAIL SERVICE AND TRASH PICK UP.
13. THE CONTRACTOR SHALL PROVIDE 4 INCHES OF TOP SOIL IN ALL PARKWAYS THAT ARE TO BE SODDED. TOP SOIL SHALL BE APPROVED BY THE CITY IN WRITING. TOPSOIL SHALL BE SUBSIDIARY TO PLACEMENT OF GRASS.
14. CONTRACTOR SHALL CONTACT THE CITY OF ROCKWALL TO LOCATE ALL WATER AND SANITARY SEWER LINES AND SERVICES PRIOR TO CONSTRUCTION.
15. CONTRACTOR SHALL SAWCUT SIDEWALK REPAIRS (NO SEPARATE PAY ITEM).
16. ALL STREET LIGHT FOUNDATIONS SHALL BE INSTALLED BY DRILLED SHAFT TECHNIQUE. NO HAND EXCAVATION OF STREET LIGHT FOUNDATIONS WILL BE ALLOWED.

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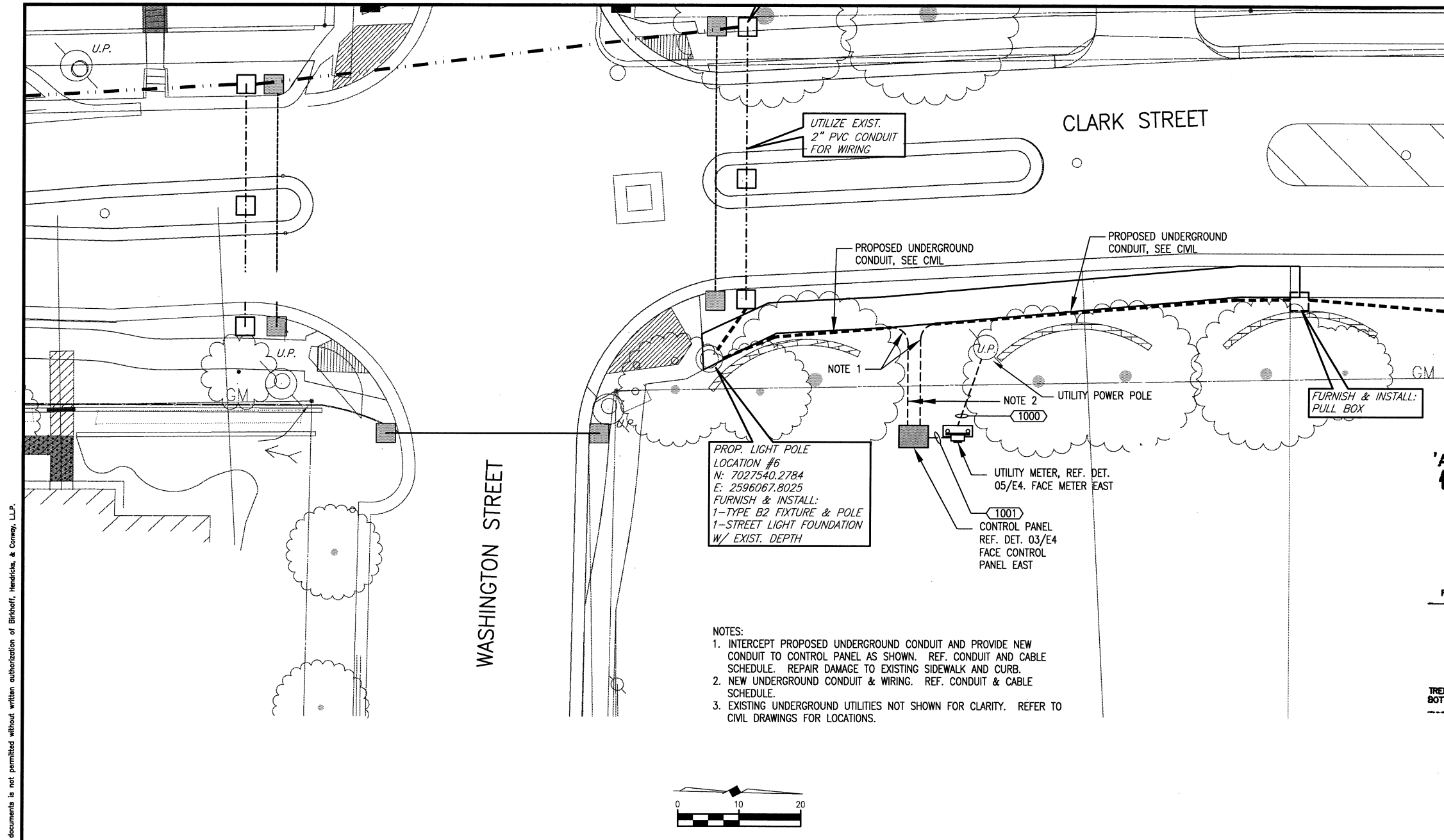
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 PROFESSIONAL ENGINEERS
 Texas Firm F526
 11910 Greenville Ave., Suite 600
 Dallas, Texas 75243 (214) 361-7900



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 PAUL A. CARLINE
 DATE: 10/09/09

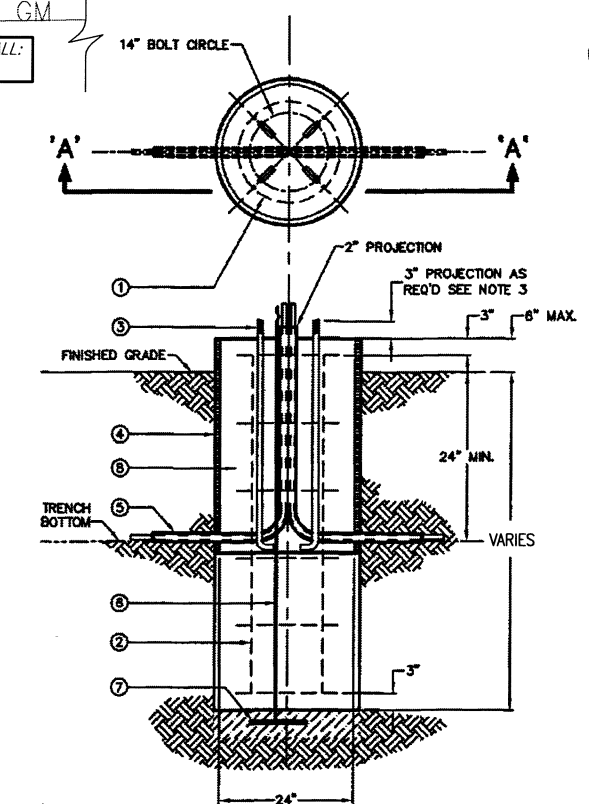
CITY OF ROCKWALL, TEXAS
 CLARK STREET LIGHTS
 POLE & CONDUIT LOCATIONS

BHC PROJECT NO. 2008-116
 April, 2009
 SHEET NO. **C4**



LEGEND
 - - - - - 2" PVC CONDUIT BY OPEN CUT
 - · - · - 2" PVC CONDUIT BY OTHER THAN OPEN CUT

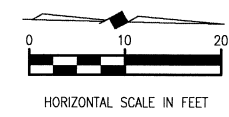
**STREET LIGHT FOUNDATION
 25', 30' & 40' SQUARE STEEL POLE
 40' M.H. ROUND STEEL POLE**



- NOTE:**
1. CONCRETE TO BE MINIMUM 3000 PSI AT 28 DAYS (5 SACK). MINIMUM AGGREGATE 3/4". TOP OF FOUNDATION TO BE TROWELED TO A FLAT AND LEVEL SURFACE. AVOID EXCESSIVE TROWELING. CONCRETE TO SET A MINIMUM OF 72 HOURS BEFORE POLE INSTALLATION.
 2. REBAR HOOPS ARE TIED BEGINNING 3" BELOW TOP OF CONCRETE FORM AND ARE REPEATED AT APPROXIMATE 1 FT. INTERVALS TO BOTTOM OF FOUNDATION.
 3. ANCHOR BOLTS TO BE SUPPLIED WITH POLE. USE TEMPLATE FURNISHED BY POLE MANUFACTURER FOR ALIGNING ANCHOR BOLTS. PROJECTION OF 3 IN. ON 25 & 30 FT. SQUARE AND 3 1/2 IN. ON 40 FT. SQUARE AND 37 FT. ROUND POLES.
 4. CONCRETE FORM OF SONOTUBE TO EXTEND TO BOTTOM OF TRENCH OR AS NEEDED.
 5. PROVIDE 24" PITTAIL FOR CONNECTION OF GROUND WIRE TO POLE.
 6. A MINIMUM OF 12" OF BARE #6 SD CU WIRE TO BE PLACED IN BOTTOM OF HOLE AND COVERED WITH 2" OF DIRT.
 7. IF SOIL HAS BEEN DISTURBED EXTEND FOUNDATION BY DEPTH OF DISTURBED SOIL.
 8. NO PRECAST STREET LIGHTING BASES WILL BE ALLOWED.

PROP. LIGHT POLE LOCATION #6
 N: 7027540.2784
 E: 2596067.8025
 FURNISH & INSTALL:
 1-TYPE B2 FIXTURE & POLE
 1-STREET LIGHT FOUNDATION W/ EXIST. DEPTH

- NOTES:**
1. INTERCEPT PROPOSED UNDERGROUND CONDUIT AND PROVIDE NEW CONDUIT TO CONTROL PANEL AS SHOWN. REF. CONDUIT AND CABLE SCHEDULE. REPAIR DAMAGE TO EXISTING SIDEWALK AND CURB.
 2. NEW UNDERGROUND CONDUIT & WIRING. REF. CONDUIT & CABLE SCHEDULE.
 3. EXISTING UNDERGROUND UTILITIES NOT SHOWN FOR CLARITY. REFER TO CIVIL DRAWINGS FOR LOCATIONS.



ITEM	QTY.	DESCRIPTION	TSN/REF	CU	MU
1	6	#3 REBAR, 18 IN. DIAMETER HOOP, 3 IN. OVERLAP	314470		
2	4	#5 REBAR, STRAIGHT, 60 IN. LONG	3117821		
3	4	ANCHOR BOLT, GALV 1 1/4 IN (SUPPLIED W/POLE)			
4	AS REQ'D	CONCRETE FOUNDATION TUBE, IN. DIAMETER	313841	SLF25	
5	AS REQ'D	CONDUIT, PVC OR PEC (NOT IN FOUNDATION AJN)			
6	0.5 LB	WIRE, #6, COPPER, SOLID	310091		
7	1	GROUND, POLE BUTT WIRE COIL 8 AS REQ'D CONCRETE			

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 CONSULTING ENGINEERS
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 Firm No. F-526

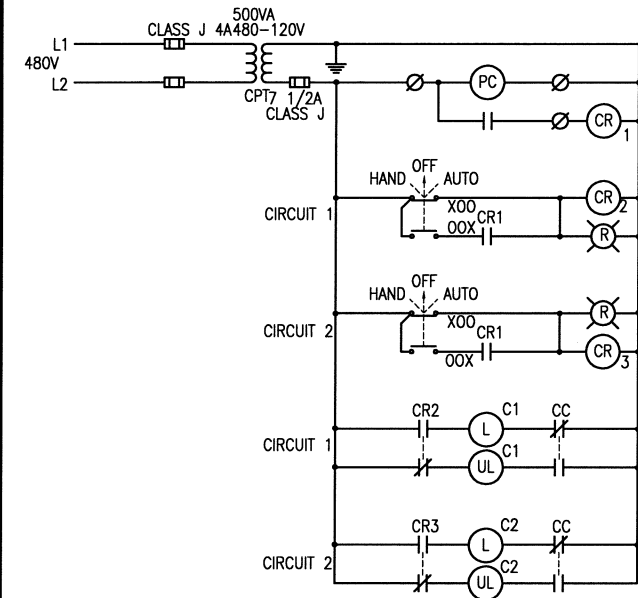
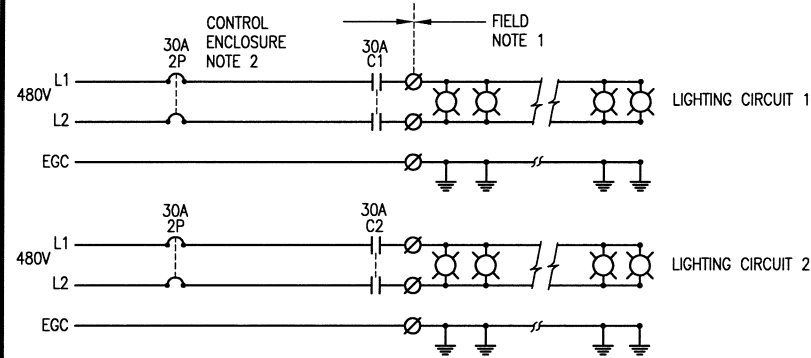


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 DATE: 6-17-09
McCREARY & ASSOCIATES, INC.
 Consulting Engineers
 Dallas, Texas FIRM No. F-338

CITY OF ROCKWALL, TEXAS
 CLARK STREET LIGHTS
 CONTROL PANEL SITE PLAN

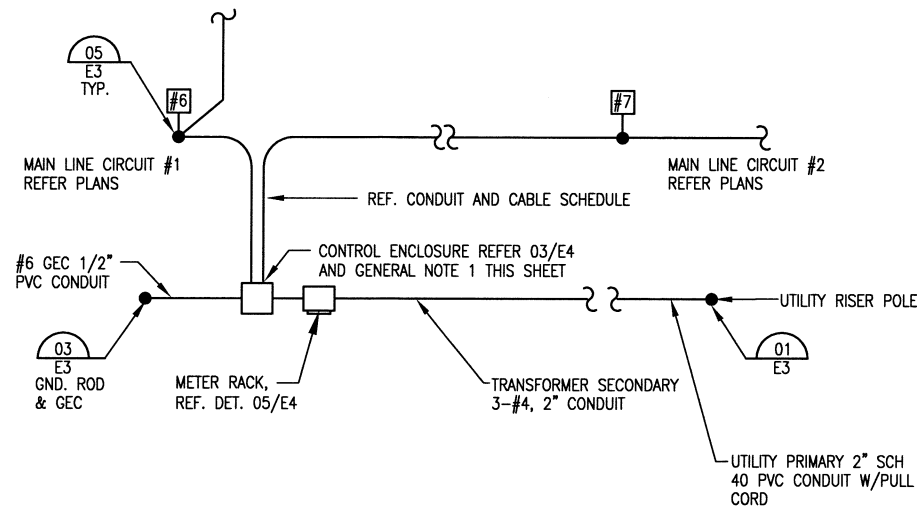
BHC
 PROJECT NO.
 2008-116
 JUNE, 2009

SHEET NO.
E1

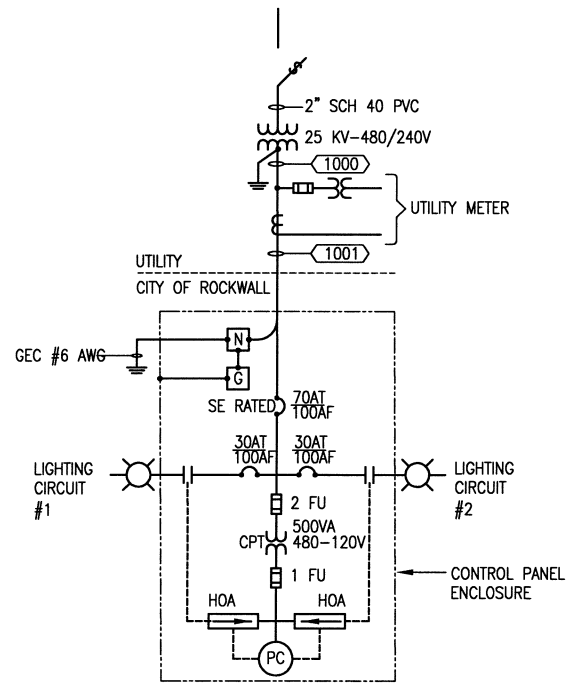


- NOTES:
1. REFER TO CONDUIT & CABLE SCHEDULE FOR FIELD WIRE SIZES.
 2. REFER TO ONE LINE DIAGRAM.

SCHEMATIC-DISTRIBUTION AND CONTROL ENCLOSURE
NOT TO SCALE



PLAN-TYPICAL STREET LIGHT POWER & CONTROL
NOT TO SCALE



ONELINE DIAGRAM
NOT TO SCALE

CONDUIT AND CABLE SCHEDULE						
TAG	WIRING	CONDUIT	SOURCE	DESTINATION	LENGTH IN FT.	COMMENTS
1000	3#4, #4G	2"	UTILITY XFMR	TRANSOCKET		
1001	3#4, #4G	2"	TRANSOCKET	CONTROLLER ENCLOSURE		
CIRCUIT #1						
1002	2#8, #8G	2"	CONTROLLER ENCLOSURE	POLE BASE 6	55	
1003	2#8, #8G	2"	POLE BASE 6	POLE BASE 5	605	
1004	2#8, #8G	2"	POLE BASE 5	POLE BASE 4	528	
1005	2#8, #8G	2"	POLE BASE 4	POLE BASE 3	388	
1006	2#8, #8G	2"	POLE BASE 3	POLE BASE 2	392	
1007	2#8, #8G	2"	POLE BASE 2	POLE BASE 1	520	
CIRCUIT #2						
1008	2#10, #10G	2"	CONTROLLER ENCLOSURE	POLE BASE 7	163	
1009	2#10, #10G	2"	POLE BASE 7	POLE BASE 8	330	
1010	2#10, #10G	2"	POLE BASE 8	POLE BASE 9	265	
1011	2#10, #10G	2"	POLE BASE 9	POLE BASE 10	410	

- NOTES:
1. DISTANCES INDICATED REFLECT APPROXIMATE DISTANCE FROM POLE BASE TO POLE BASE. WIRING FROM POLE BASE TO FIXTURE IS NOT INCLUDED IN THIS TABLE.
 2. CONDUIT IS EXISTING. CONDUCTORS FURNISHED UNDER THIS CONTRACT.
 3. REFER TO CIVIL DRAWINGS FOR POLE BASE LOCATIONS.

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GENERAL NOTES

1. ALUMINUM CONTROL ENCLOSURE SPECIFICATIONS AS FOLLOWS:
 - UL508A LABEL, SERVICE ENTRANCE CERTIFIED.
 - ALUMINUM NEMA 3R FREE STANDING, UL LISTED.
 - PHOTO CELL MOUNTED INSIDE CONTROL CABINET.
 - PROVIDE TWO POLE, 650 VOLT LIGHTNING ARRESTOR.
 - PANEL BY ELECTROL SYSTEMS, INC., SAN ANTONIO OR APPROVED EQUAL.
2. THE CONTRACTOR SHALL MOVE AND/OR ADJUST OR SHIELD THE PHOTOCELL FROM STRAY OR AMBIENT NIGHTTIME LIGHT OR SHALL MAKE ANY OTHER ADJUSTMENTS REQUIRED FOR PROPER OPERATION. UNLESS OTHERWISE SHOWN ON THE PLANS, THE PHOTOCELL SHALL TURN ON THE ILLUMINATION SYSTEM AT 1.0 ±0.5 FOOTCANDLE AND TURN OFF THE ILLUMINATION SYSTEM AT TWO FOOTCANDLES HIGHER THAN TURN ON.

BIRKHOFF, HENDRICKS & CONWAY, L.L.P.
CONSULTING ENGINEERS
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Firm No. F-526



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Richard Brady
DATE: 6-17-09
McCREARY & ASSOCIATES, INC.
Consulting Engineers
Dallas, Texas FIRM No. F-338

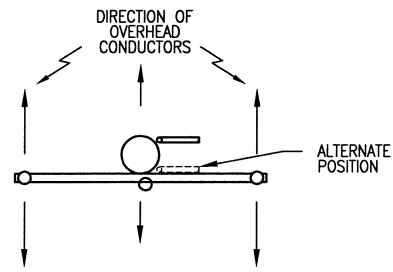
CITY OF ROCKWALL, TEXAS
CLARK STREET LIGHTS
ELECTRICAL
ONE LINE DIAGRAM & SCHEMATICS

BHC
PROJECT NO.
2008-116

SHEET NO.

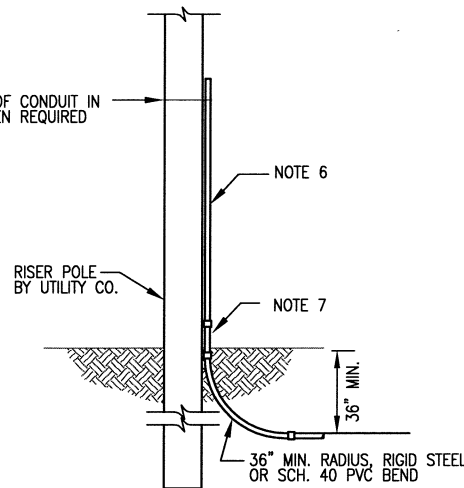
JUNE, 2009

E2



TOP VIEW

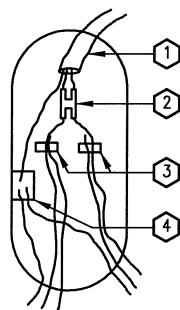
WIRE 10' OF CONDUIT IN PLACE WHEN REQUIRED



NOTES:

- CONTACT COMPANY REPRESENTATIVE FOR ROUTING OF CONDUIT LINE AND SIZE OF CONDUIT.
- FOR INSTALLATIONS REQUIRING MORE THAN ONE RISER ON POLE, CONTACT COMPANY REPRESENTATIVE.
- LIMIT RACEWAY TO THREE 90° BENDS. IF MORE THAN THREE 90° BENDS ARE REQUIRED, CONTACT COMPANY REPRESENTATIVE.
- LIMIT DISTANCE BETWEEN 90° BENDS TO FIVE FEET WHEREVER POSSIBLE.
- ALL HORIZONTAL AND VERTICAL BENDS TO BE LONG RADIUS.
- EXTEND BEND WITH 10 FEET OF RIGID STEEL OR SCHEDULE 80 PVC CONDUIT FOR ALIGNMENT OF BEND.
- INSTALL NIPPLE WHEN REQUIRED TO EXTEND BEND MIN. 8" ABOVE FINISHED GRADE.

01 TERMINATION OF SECONDARY CONDUIT AT RISER POLE
NOT TO SCALE



06 POLE HANDHOLE DETAIL
NOT TO SCALE

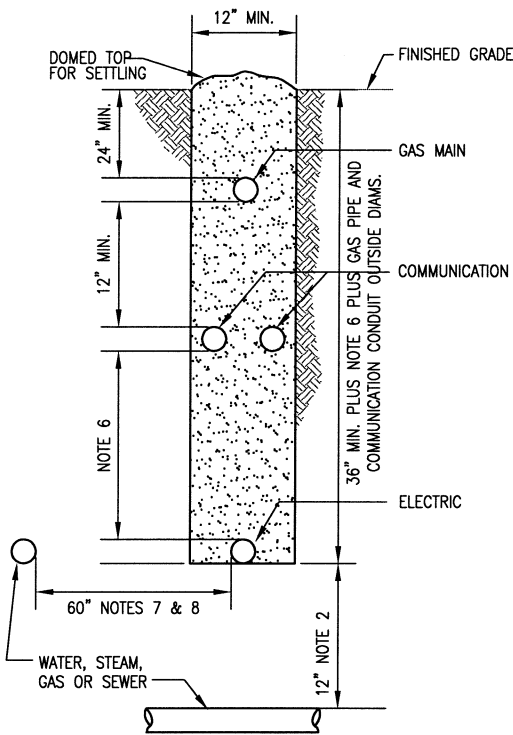
NOTES:

- SO CABLE-3C#12
- BUSSMAN DOUBLE POLE FUSE HOLDER "HEY" SERIES HEY AC FOR #4 CONDUCTORS HEY AD FOR #2 CONDUCTORS EACH WITH 1A0512 HOLDER PROVIDE 2-10A KTK-R FUSES FOR DUAL FIXTURES PROVIDE 2-5A KTK-R FUSES FOR SINGLE FIXTURES
- SPLIT BOLT-BURNDY TYPE KS23 & SC2 SERVIT COVER (NOT SHOWN)
- POLE GROUND LUG

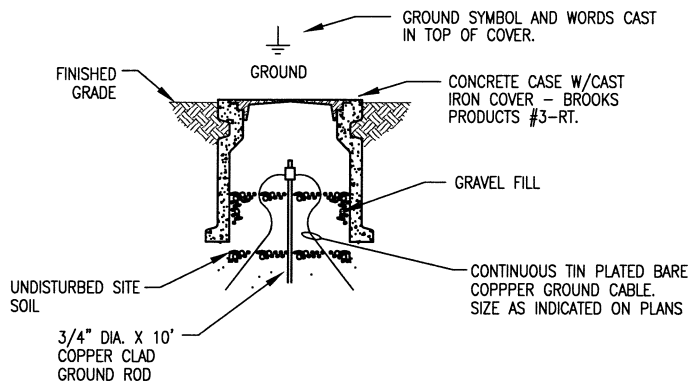
02 TRENCH REQUIREMENTS
NOT TO SCALE

NOTES:

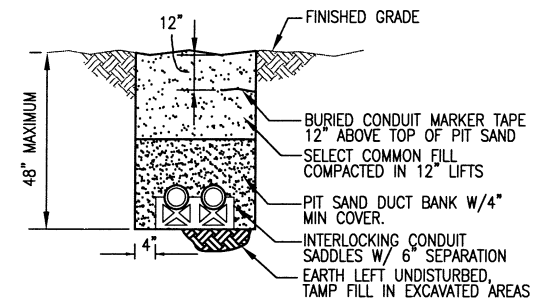
- TRENCH ALIGNMENT SHALL BE AS STRAIGHT AS CONDITIONS PERMIT. ANY DEVIATIONS FROM PLANNED ALIGNMENT SHALL HAVE PRIOR APPROVAL BY THE PROJECT ENGINEER/INSPECTOR. ALL TRENCH CUTS SHALL BE IN ACCORDANCE WITH EXISTING SAFETY REGULATIONS IN EFFECT.
- TRENCH BOTTOM SHALL BE UNDISTURBED, TAMPED OR RELATIVELY SMOOTH EARTH. WHERE EXCAVATION IS IN ROCK, THE CONDUIT SHALL BE LAID ON A LAYER OF CLEAN BACKFILL.
- ALL BACKFILL SHOULD BE FREE OF DEBRIS OR OTHER MATERIAL THAT MAY DAMAGE THE CONDUIT SYSTEM OR CAUSE SETTLING. THE MATERIAL SHALL FILL THE VOIDS AROUND THE CONDUIT TO PREVENT HOT SPOTS & SETTLING.
- BACKFILL SHALL BE ADEQUATELY COMPACTED. BACKFILL NOT UNDER PAVEMENT SHALL BE COMPACTED TO THE DENSITY OF THE SURROUNDING UNDISTURBED SOIL. BACKFILL UNDER PAVEMENT SHALL BE COMPACTED TO NOT LESS THAN 95% OF THE DENSITY OF UNDISTURBED SOIL AS DETERMINED BY ASTM DESIGNATION D-698.
- EACH CONDUIT RUN SHALL BE CHECKED BY PULLING A MANDREL THROUGH THE ENTIRE LENGTH. A 1/8" NYLON PULLING CORD SHALL BE LEFT IN EACH CONDUIT. CONDUIT SHALL BE PLUGGED AT BOTH ENDS.
- SUPPLY AND COMMUNICATION CONDUIT SEPARATIONS: CONDUIT SYSTEMS TO BE OCCUPIED BY COMMUNICATIONS CONDUCTORS SHALL BE SEPARATED FROM CONDUIT SYSTEMS TO BE USED FOR SUPPLY SYSTEMS BY:
 - 3 INCHES OF CONCRETE
 - 4 INCHES OF MASONRY
 - 12 INCHES OF WELL COMPACTED EARTH
 EXCEPTION: LESSER SEPARATIONS MAY BE USED WHERE THE PARTIES CONCUR.
- VERTICAL CROSSING CLEARANCE FROM OTHER UTILITIES SHALL BE 12 INCHES. A 60 INCH LATERAL SEPARATION OF PARALLELING FOREIGN UTILITIES (EXCLUDING COMMUNICATIONS) SHALL BE REQUIRED. AN EXCEPTION WOULD BE TO ALLOW TELEPHONE AND/OR CATV IN THE SAME DITCH AS COMPANY CONDUIT SYSTEM PROVIDING THEIR CIRCUIT IS INSTALLED IN CONDUIT AND MEETS OR EXCEEDS NESC REQUIREMENTS FOR CONDUIT SEPARATION.
- IT IS UNDERSTOOD THAT ONLY 12 INCH SEPARATION IS REQUIRED ON PUBLIC RIGHTS-OF-WAY. PERSONNEL INVOLVED IN EXCAVATION ON PUBLIC RIGHTS-OF-WAY ARE FULLY AWARE OF THE HAZARDS INVOLVED. HOWEVER, EXCAVATION ON PRIVATE PROPERTY CAN BE DONE BY INDIVIDUALS WHO ARE NOT LIKELY TO BE FULLY AWARE OF THE HAZARDS. THEREFORE, THE 60 INCH LATERAL SEPARATION IS REQUIRED TO HELP PREVENT INJURY TO PERSONNEL DOING EXCAVATION ON PRIVATE PROPERTY.



03 GROUND ROD & WELL
NOT TO SCALE

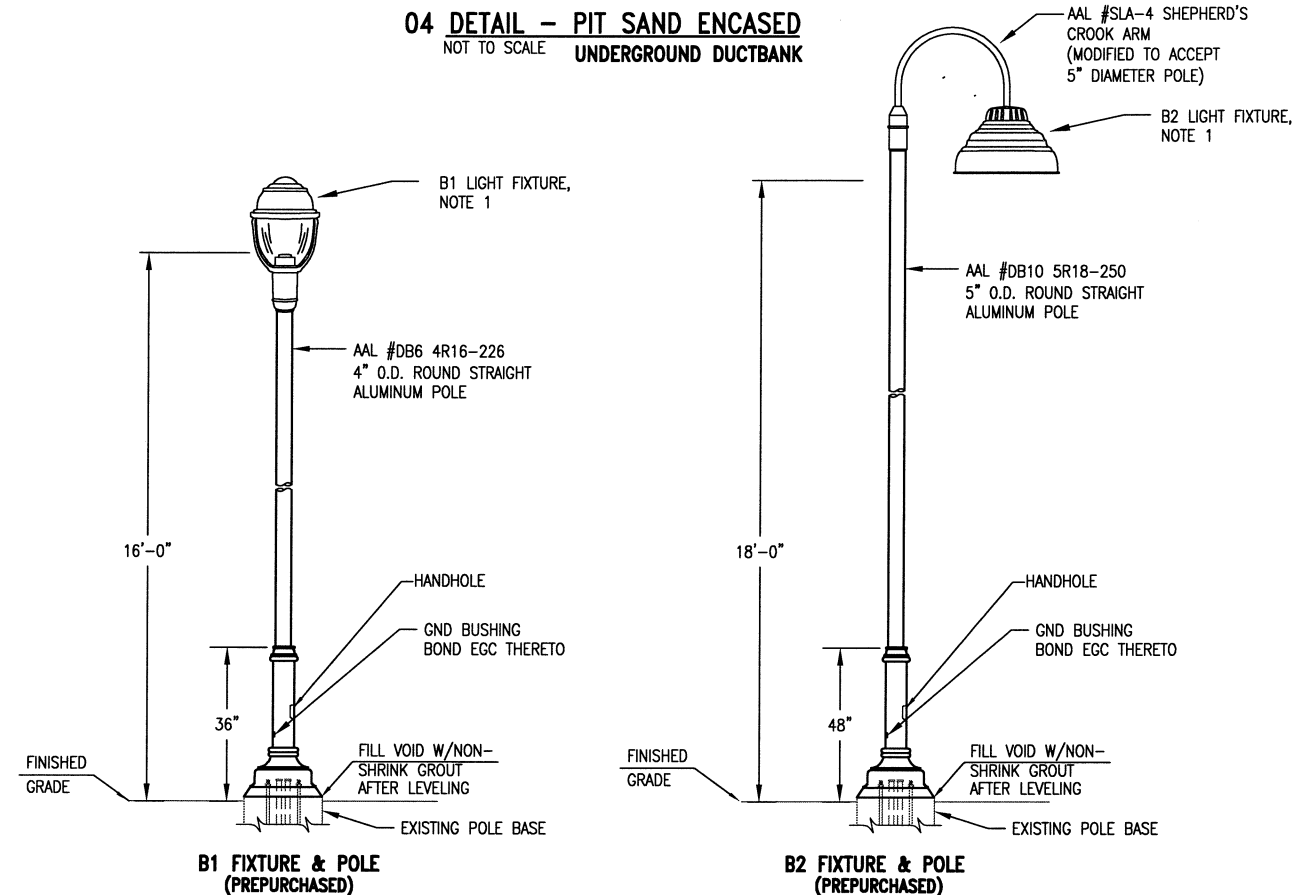


04 DETAIL - PIT SAND ENCASED UNDERGROUND DUCTBANK
NOT TO SCALE



NOTES:

- NUMBER AND SIZE OF CONDUITS SHALL BE AS SHOWN ON THE PLANS.
- TOP OF PIT SAND ENCASEMENT SHALL BE A MINIMUM OF 24" FROM FINISHED GRADE.
- USE THIS DETAIL FOR OTHER THAN VEHICULAR TRAFFIC AREAS.



NOTES:

- REFERENCE LUMINAIRE SCHEDULE THIS SHEET FOR LIGHT FIXTURE DATA
- THE POLES, FIXTURES AND LAMPS WILL BE PROVIDED BY THE OWNER AND SHALL BE INSTALLED BY THE CONTRACTOR.

05 LIGHTING FIXTURE AND POLE INSTALLATION
NOT TO SCALE

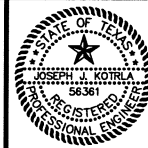
This record drawing is a compilation of the sealed engineering drawing for this project; modified by addenda, change orders and information furnished by the contractor. The information shown on the record drawings that was provided by the contractor or others not associated with the design engineer cannot be verified for accuracy or completeness. This original sealed drawings are on file at the offices of Birkhoff, Hendricks & Conway, L.L.P.
BY: PAC DATE 10/09/09

Symbol	Qty	Volt	Tag	Arr.	Lamp	Lumens	LLF	Mfg.	Description	Comment
●	9	480	B1	SINGLE	150W MH	12500	0.72	AAL	PRMSH2150PMHCHMDB	POLES 2-5 & 7-9
●●	1	480	B2	SINGLE	250W MH	20500	0.72	AAL	PRM2H5250PMHDB	POLES 1, 6, & 10

NOTES:

- PHOTOMETRIC DATA USED IS BASED ON ESTABLISHED IES PROCEDURES AND PUBLISHED LAMP RATINGS.
- THE LIGHT LOSS FACTOR (LLF) IS BASED ON LAMP MANUFACTURER'S PUBLISHED MEAN LUMEN RATINGS.
- FIELD PERFORMANCE WILL DEPEND ON ACTUAL LAMP, BALLAST, ELECTRICAL AND SITE CHARACTERISTICS.
- SAME AS A1 EXCEPT WITH THE OPTIONAL BPS - FIXTURE STRUTS FINISHED IN A BRASS COLORED POWDER.

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Firm No. F-526

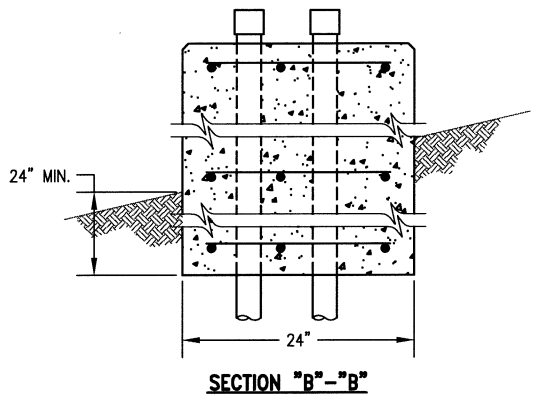
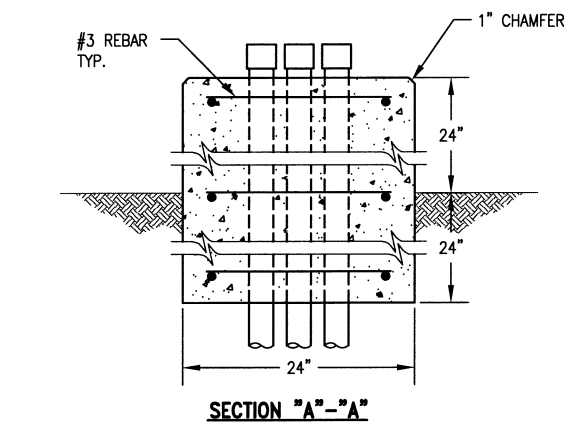
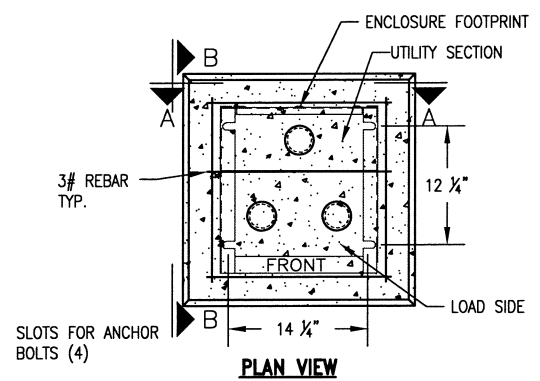


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DATE: 6-17-09
McCreeley & Associates, Inc.
Consulting Engineers
Dallas, Texas FIRM No. F-338

CITY OF ROCKWALL, TEXAS
CLARK STREET LIGHTS
ELECTRICAL
DETAILS SHEET I

BHC
PROJECT NO.
2008-116
JUNE, 2009

SHEET NO.
E3

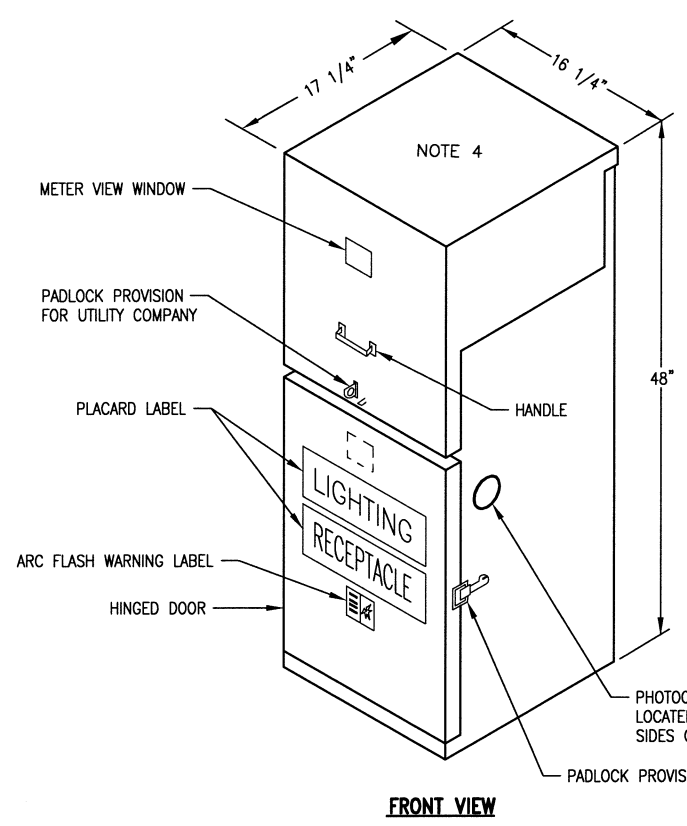


01 CONTROL ENCLOSURE PANEL PAD DETAIL

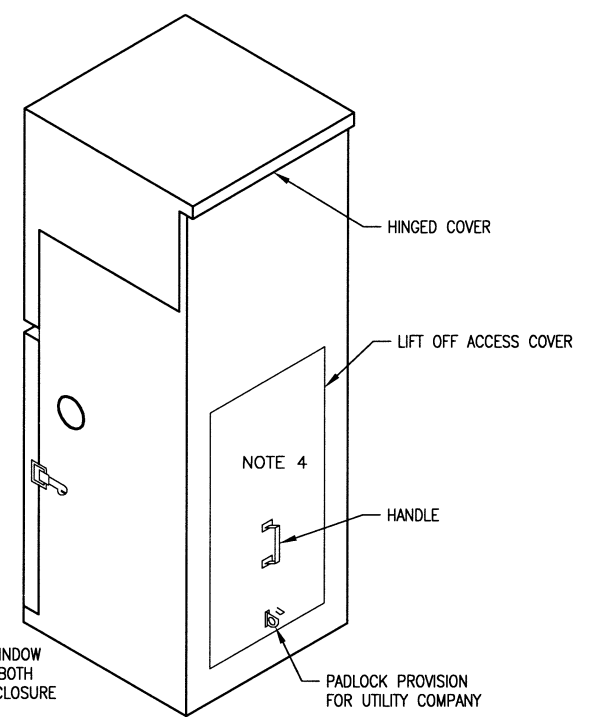
PANEL SD		240/480v, 1φ-3W, MAIN			65A, 10KAIC @ 480V						
LOAD	COND.	WIRE	LOAD SERVED	BRKR	CKT	CKT	BRKR	LOAD SERVED	WIRE	COND.	LOAD
8.6 KVA	2"	NOTE 1	STREET LIGHTS CIRCUIT 1	30/2	1	2	30/2	STREET LIGHTS CIRCUIT 2	NOTE 1	2"	8.6 KVA
0.5 KVA	---	12	CPT	NOTE 2	---	M	70/2	MAIN	NOTE 1	2"	---

CONTROL ENCLOSURE SCHEDULE

- NOTES:
1. REFER TO CONDUIT & CABLE SCHEDULE, SHEET E2 FOR WIRE SIZES.
2. REFER TO POLE HANDHOLE DETAIL 06/E3 FOR FUSE SIZES.



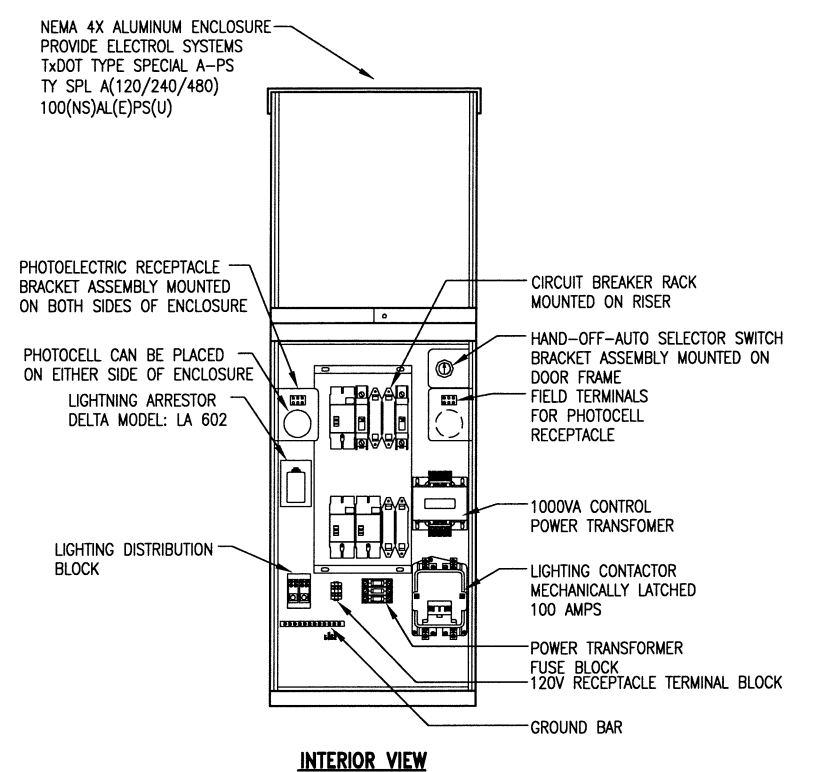
FRONT VIEW



REAR VIEW

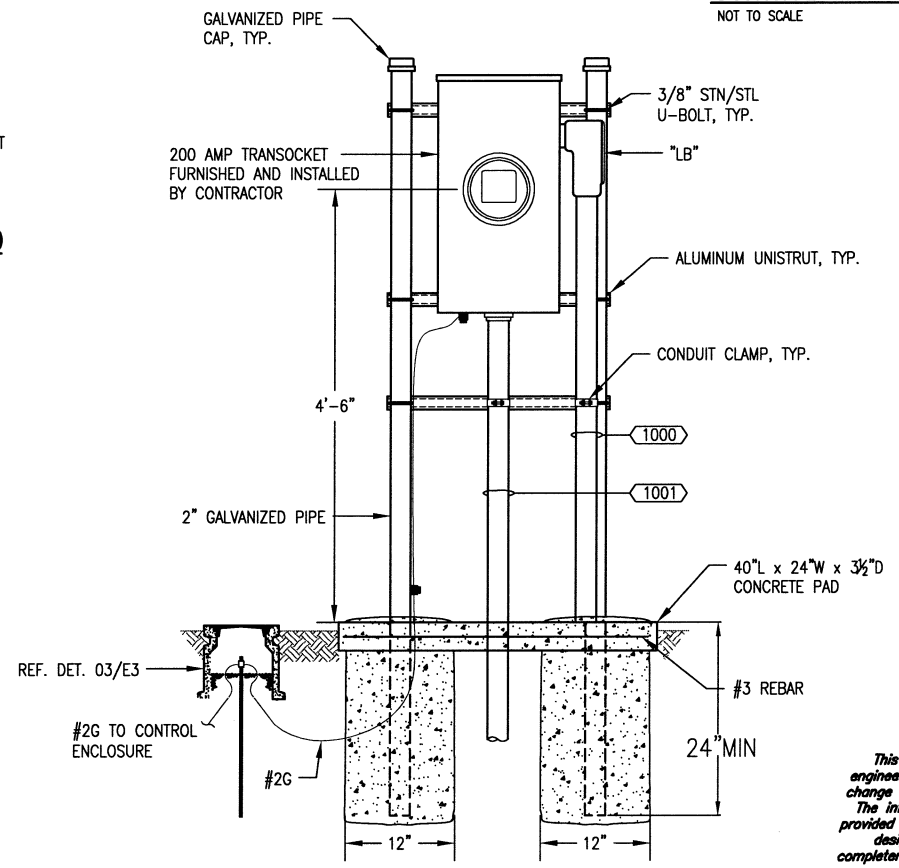
- NOTES:
1. CABINET INTERIOR WITH DOOR REMOVED, DEAD FRONT CONSTRUCTION.
2. CIRCUIT BREAKERS AND FUSES - REFER TO SCHEMATIC.
3. UL LISTED ASSEMBLY. REFER TO GENERAL NOTE 1 SHEET E3 FOR SPECIFICATIONS.
4. FOR UTILITY COMPANY ACCESS ONLY.

03 CONTROL ENCLOSURE PANEL SD
NOT TO SCALE



INTERIOR VIEW

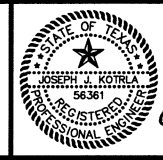
04 CONTROL ENCLOSURE PANEL SD
NOT TO SCALE



05 METERING EQUIPMENT STAND
NOT TO SCALE

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Joseph W. Kotrla
DATE: 6-17-09
McCREARY & ASSOCIATES, INC.
Consulting Engineers
Dallas, Texas FIRM No. F-338

CITY OF ROCKWALL, TEXAS
CLARK STREET LIGHTS
ELECTRICAL
DETAILS SHEET II

BHC
PROJECT NO.
2008-116
JUNE, 2009

SHEET NO.
E4