MARK R. JENKINS - IDOT ELECTRICAL OPERATIONS CONTRACT PLANS UNIT CHIEF (847) 705-4387

CONTRACT NO. 60828

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	1

INDEX OF SHEETS / DRAWINGS

SHEET NO.	DRAWING NO.	TITLE
1	G-1	TITLE SHEET
2	G-2	GENERAL NOTES & STANDARDS
3	G-3	NOTES
4	G-4	SUMMARY OF QUANTITIES
5	G-5	EXISTING SITE PLAN
6	G-6	PROPOSED SITE PLAN
7	G-7	DRAINAGE, UTILITIES & EROSION CONTROL PLAN
8	G-8	SITE DETAILS
9	G-9	SITE DETAILS
10	G-10	HAR ANTENNA FOUNDATION
11	DM-1	MECHANICAL DEMOLITION - SHEET 1
12	DM-2	MECHANICAL DEMOLITION - SHEET 2
13	DM-3	MECHANICAL DEMOLITION - SHEET 3
14	DM-4	MECHANICAL DEMOLITION - SHEET 4
15	A-1	ARCHITECTURAL ELEVATIONS
16	A-2	ARCHITECTURAL PLAN
17	A-3	ARCHITECTURAL ROOF PLAN
18	A-4	ARCHITECTURAL SECTIONS & DETAILS
19	A-5	ARCHITECTURAL DETAILS
20	S-1	STRUCTURAL GENERAL NOTES - SHEET 1
21	S-2	STRUCTURAL GENERAL NOTES - SHEET 2
22	S-3	STRUCTURAL SITE PLAN
23	S-4	RAILING PLAN & DETAILS
24	S-5	STRUCTURAL SECTIONS
25	S-6	PLAN AT EL.'s +15'-3" & -2'-9" & SECTIONS
26	S-7	PLAN AT EL.'s -20'-9" & -42'-3" & SECTIONS
27	S-8	SECTIONS & DETAILS
28	S-9	ROOF HOIST BEAM & SERVICE PLATFORM PLANS, SECTIONS & DETAILS
29	S-10	FLOOR OPENING CLOSURES & CASING SUPPORT DETAILS
30	S-11	STRUCTURAL OPENING MODIFICATION PLANS - EXISTING ROOF & FLOOR SLABS
31	S-12	MISCELLANEOUS STEEL SECTIONS & DETAILS
32	S-13	SOIL BORINGS
33	M-1	MECHANICAL SYMBOL LIST & NOTES
34	M-1A	GENERAL ARRANGEMENT - PLAN
35	M-2	GENERAL ARRANGEMENT - PLANS & SECTIONS
36	M-3	GENERAL ARRANGEMENT - PLANS & SECTIONS
37	M-4	GENERAL ARRANGEMENT - ELEVATION
38	M-5	PIPE DETAILS
39	M-6	PIPE SUPPORT & DETAILS
40	M-7	EQUIPMENT SCHEDULE & PUMPING OPERATING ELEVATION
41	M-8	HEATING & VENTILATION - PLANS & DETAILS
42	E-1	ELECTRICAL SYMBOL LIST
43	E-2	ELECTRICAL SITE PLAN & DETAILS
44	E-3	MCC-PS26 ONE LINE DIAGRAM - SHEET 1
45	E-3A	MCC-PS26 ONE LINE DIAGRAM - SHEET 2
46	E-4	MCC-PS26 ELEVATION
47	E-5	ELECTRICAL CONDUIT PLAN - SHEET 1
48	E-6	ELECTRICAL CONDUIT PLANS - SHEET 2
49	E-7	MAIN PUMP MP-1 CONTROL SCHEMATIC
50	E-8	LOW FLOW PUMP LFP-1 CONTROL SCHEMATIC
51	E-9	VENTILATION SYSTEM CONTROL SCHEMATICS - SHEET 1
52	E-10	VENTILATION SYSTEM CONTROL SCHEMATICS - SHEET 2
53	E-11	CONTROL PANEL SCHEMATIC - SHEET 1
54	E-12	CONTROL PANEL SCHEMATIC - SHEET 2
55	E-13	CONTROL, VENTILATION TRASH RACK PANELS EQUIPMENT LAYOUT
56	E-14	SCADA PANEL SCHEMATIC/WIRING DIAGRAM - SHEET 1
57	E-15	SCADA PANEL SCHEMATIC/WIRING DIAGRAM - SHEET 2
58	E-16	SCADA PANEL SCHEMATIC/WIRING DIAGRAM - SHEET 3
59	E-17	SCADA PANEL SCHEMATIC/WIRING DIAGRAM - SHEET 4
60	E-18	SCADA PANEL SCHEMATIC/WIRING DIAGRAM - SHEET 5
61	E-19	FLOW RECIRCULATION SYSTEM CONTROL SCHEMATICS
62	E-20	TRASH RACK DRIVE CONTROL SCHEMATICS
63	E-21	INTRUSION, GAS MONITORING & FIRE ALARM SCHEMATICS
64	E-22	ELECTRICAL LIGHTING PLAN, PANEL BOARD & FIXTURE SCHEDULE - SHEET 1
65	E-23	ELECTRICAL LIGHTING PLANS - SHEET 2
66	E-24	STAIRWELL (TRASHBIN) JIB CRANE CONTROL SCHEMATIC
67	DE-1	DEMOLITION - ELECTRICAL PLANS & SECTIONS
68	DE-2	DEMOLITION - ELECTRICAL PLANS
69	DE-3	DEMOLITION - ELECTRICAL LONGITUDINAL SECTIONS
	70 TO 75	DISTRICT ONE STANDARDS

FOR LIST OF DISTRICT ONE STANDARDS SEE SHEET NO.2
FOR LIST OF IDOT HIGHWAY STANDARDS SEE SHEET NO.2

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

CALL CUAN:
CHICAGO UTILITY ALERT NETWORK
(312)744-7000

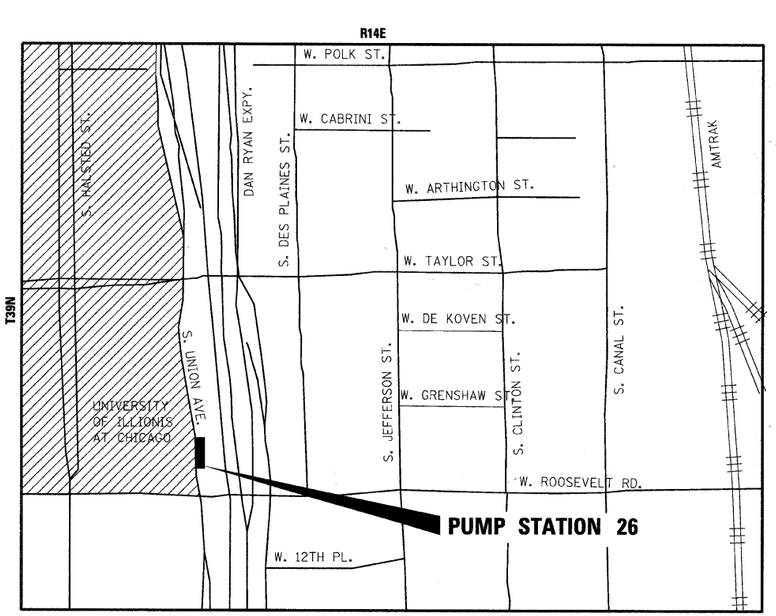
CONTRACT NO. 60828

100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0 50' 100' — 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 20'

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED PUMP STATION

PUMP STATION 26 REHABILITATION
ROOSEVELT ROAD AT UNION AVENUE
FAI ROUTE 90/94
SECTION 1999-161-I
PROJECT C-91-411-99
COOK COUNTY



LOCATION MAP

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No. 184-000533

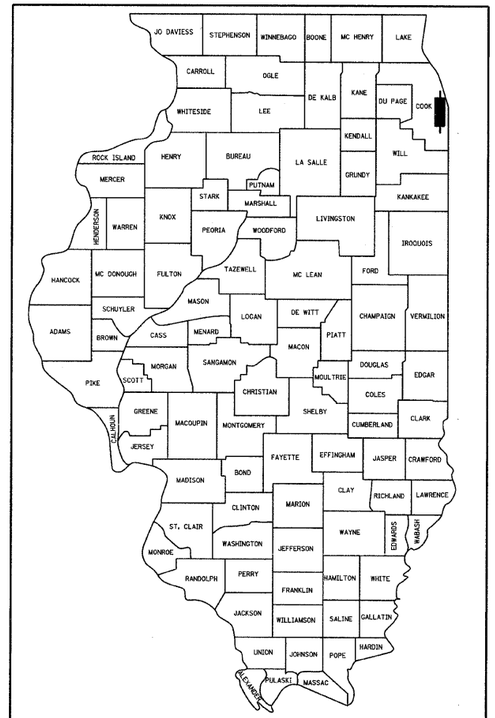
ALIA MAHMOOD 062-058968 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS
EXPIRATION DATE: 11-30-2011
DATE: 3-23-2010
SHEETS: DM-1 THRU DM-4, M-1 THRU M-8

MAJID ZANDI 062-047330 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS
EXPIRATION DATE: 11-30-2011
DATE: 3-23-2010
SHEETS: E-1 THRU E-24, DE-1 THRU DE-3

AARON NEUMAN 081-006209 LICENSED STRUCTURAL ENGINEER STATE OF ILLINOIS
EXPIRATION DATE: 11-30-2010
DATE: 3-23-2010
SHEETS: S-1 THRU S-2, S-5 THRU S-13

DEBASHIS SARKAR 001-019991 LICENSED ARCHITECT STATE OF ILLINOIS
3/23/10
EXPIRATION DATE: 11-30-2010
DATE: 3-23-2010
SHEETS: A-1 THRU A-5

KURT G. FRANK 062-048521 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS
EXPIRATION DATE: 11-30-2011
DATE: 3-23-2010
SHEETS: G-1 THRU G-5, G-9 THRU G-10



LOCATION OF SECTION INDICATED THUS: —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED MARCH 24, 20 10

Diane M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 7 20 10

Scott E. Stitt, P.E. /a
acting ENGINEER OF DESIGN AND ENVIRONMENT

May 7 20 10

Christine M. Reed /a
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	2
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99

LIST OF DISTRICT ONE STANDARDS

SHEET NO.	STANDARD NO.	DESCRIPTION
71	BD-22	PAVEMENT PATCHING FOR BITUMINOUS SURFACED PAVEMENT
72	BD-24	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
73	TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS
74	TC-17	TRAFFIC CONTROL DETAILS FOR SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES
75	TC-18	SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS
76	TC-22	ARTERIAL ROAD INFORMATION SIGN
--	BD-12	MANHOLE WITH RESTRICTOR PLATE
--	TC-16	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
--	TC-24	CITY OF CHICAGO TYPICAL PAVEMENT MARKINGS (2 SHEETS)

LIST OF IDOT HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001	TEMPORARY EROSION CONTROL SYSTEMS
420001	PAVEMENT JOINTS
420101	24' JOINTED PCC PAVEMENT
420111	PCC PAVEMENT ROUNDOUTS
420701	PAVEMENT FABRIC
442201	CLASS C AND D PATCHES
601001	SUB SURFACE DRAINS
601101	CONCRETE HEADWALL FOR PIPE DRAIN
602001	CATCH BASIN - TYPE A
602401	MANHOLE - TYPE A
604001	FRAME AND LIDS - TYPE 1
606001	CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER
664001	CHAIN LINK FENCE
701101	OFF-ROAD OPERATIONS, MULTI-LANE, 15' TO 24" FROM PAVEMENT EDGE
701106	OFF-ROAD OPERATIONS, MULTI-LANE, MORE THAN 15' AWAY
701400	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401	LANE CLOSURE, FREEWAY/EXPRESSWAY
701406	LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
701426	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION FOR SPEEDS ≥45 MPH
701701	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801	LANE CLOSURE, MULTILANE, 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901	TRAFFIC CONTROL DEVICES
720006	SIGN PANEL ERECTION DETAILS
720011	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
729001	APPLICATIONS OF TYPES A AND B METAL POSTS (FOR SIGNS AND MARKERS)
729001	APPLICATIONS OF TYPES A AND B METAL POSTS (FOR SIGNS AND MARKERS)

GENERAL NOTES:

1. THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS. SITE ACCESS. POWER SUPPLY AND OTHER ITEMS THAT AFFECT THE CONTRACT AND THE CONSTRUCTION OF THE IMPROVEMENT.

2. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATIONS OR A CHANGE IN THE SCOPE OF THE WORK.

3. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS HAVE BEEN OBTAINED BY FIELD SURVEYS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THIS DATA IS ESSENTIALLY CORRECT. BUT THE DEPARTMENT AND OTHERS ASSOCIATED WITH THESE PLANS DO NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS. THE CONTRACTOR WILL BE REQUIRED TO VERIFY THE EXACT LOCATION OF EACH FACILITY WITH THE UTILITY COMPANY WHEN THE POTENTIAL EXISTS FOR INVOLVEMENT AND SHALL TAKE DUE CARE IN ALL PHASES OF THE CONSTRUCTION TO PROTECT ANY SUCH FACILITIES WHICH MAY BE AFFECTED BY THE WORK. ANY DAMAGES TO THE UTILITIES SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

4. ALL MECHANICAL AND ELECTRICAL EQUIPMENT REMOVED FROM THE PUMP STATION SHALL BECOME THE PROPERTY OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION. BUREAU OF ELECTRICAL OPERATIONS. IF AT THE TIME OF REMOVAL. THE ENGINEER DECIDES THAT THE EQUIPMENT IS NOT USABLE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE AND PROPERLY DISPOSED OF OFFSITE.

5. IN GENERAL. PRIOR TO CUTTING OPENINGS IN THE EXISTING REINFORCED CONCRETE SLABS AND WALLS. THE CONTRACTOR SHALL IDENTIFY EXACT LOCATIONS OF MAIN REINFORCING BARS (REBAR DETECTOR OR OTHER APPROVED PROCEDURE). THE CONTRACTOR SHALL RECEIVE APPROVAL FROM THE ENGINEER PRIOR TO CUTTING REINFORCED CONCRETE.

6. THE CONTRACTOR SHALL COMPLY WITH APPLICABLE OSHA REGULATIONS.

7. ALL EXPOSED CORNERS ON STRUCTURAL CONCRETE SHALL BE CHAMFERED 19mm (3/4").

8. CLASS SI CONCRETE IN ACCORDANCE WITH IDOT STANDARD SPECIFICATIONS SHALL BE USED FOR ALL CONCRETE WORK WITHIN THE BUILDING. IDOT STANDARD SPECIFICATIONS SHALL GOVERN ALL OTHER CONCRETE WORK OUTSIDE OF THE BUILDING.

9. REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-331M (1.1- 31I. M-42M (M-42) OR M-53M (M-53) GRADE 400 (601.

10. SAW CUTTING WILL NOT BE PAID FOR SEPARATELY BUT SHOULD BE CONSIDERED INCLUDED IN THE ITEM BEING REMOVED.

11. STRUCTURAL DESIGN DATA FOR WORK INSIDE BUILDING:

    REINFORCING STEEL fy = 413.640 kPA (60.000 psI)
    CONCRETE fee = 24.000 kPA (3.500 pSI) 14 DAYS
    CONCRETE fee = 27.400 kPA (4.000 psI) 28 DAYS

12. THE CONTRACTOR SHALL SUBMIT A DETAILED WRITTEN AND DIAGRAMMED SEQUENCE OF WORK PRIOR TO ANY CONSTRUCTION ACTIVITY FOR REVIEW AND APPROVAL BY THE ENGINEER. THIS SCHEDULE SHALL BE UPDATED AS NECESSARY TO CLEARLY IDENTIFY WORK SCHEDULE AND MAINTAIN OPERATION OF THE FACILITY AT ALL TIMES. THESE SHEETS DEPICT BASIC REMOVAL AND PROPOSED CONSTRUCTION REQUIREMENTS. TO MAINTAIN THE FACILITY IN CONTINUOUS OPERATION DURING THE CONSTRUCTION PERIOD. TEMPORARY EQUIPMENT AND WIRING CONNECTIONS MAY BE REQUIRED. SUCH WORK SHALL BE STAGED BY THE CONTRACTOR TO FACILITATE THE PROJECT WITHOUT JEOPARDIZING THE OPERATING INTEGRITY OF THE STATION. THE PUMPING CAPACITY OF THE EXISTING STATION MUST BE MAINTAINED AT ALL TIMES (SPECIFIED STATION PUMPING CAPACITY 227.1 m3/m OR 60.000 opm). THE CONTRACTOR SHALL OBTAIN APPROVAL OF THE ENGINEER FOR ALL TEMPORARY WORK. REFER TO THE SPECIAL PROVISIONS.

13. NOTE THAT DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE PUMPING STATION IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE'S ELECTRICAL MAINTENANCE CONTRACT. SHORT-TERM SHUTDOWN WILL BE PERMITTED WITH SPECIFIC WRITTEN PERMISSION (SEE SPECIAL PROVISIONS).

14. ALL EXPOSED CONDUITS SHALL BE TIGHTLY GROUPED.

15. COORDINATE EXACT LOCATION O: ALL WORK INCLUDING MAJOR COMPONENTS. WITH THE ENGINEER, BEFORE INSTALLATION.

16. ANY SITE AREA DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO ITS ORIGINAL CONDITION BY THE CONTRACTOR, TO THE SATISFACTION OF THE ENGINEER, AT NO ADDITIONAL COST.

17. ALL SHOP DRAWINGS. MATERIAL SAMPLES ETC, MUST BE SUBMITTED AND APPROVED BY THE ENGINEER BEFORE INSTALLATION.

18. ALL CONCRETE CONSTRUCTION JOINTS BETWEEN NEW AND EXISTING STRUCTURAL CONCRETE SHOWN ON THE PLANS OR ADDED BY THE CONTRACTOR SHALL BE BONDED CONSTRUCTION JOINTS IN ACCORDANCE WITH ARTICLE 503.09(b) OF THE IDOT STANDARD SPECIFICATIONS.

19. CRUSHED SLAG SHALL NOT BE USED AS AN AGGREGATE MATERIAL.

20. FIBERGLASS GRATING SHALL BE ONE PIECE CONSTRUCTION, 1" HEAVY-DUTY WITH 1" ON CENTER AND CROSS RODS 6" ON CENTER. RESIN SHALL BE FIRE RETARDANT VINYL ESTER MEETING THE REQUIREMENTS OF CLASS 1 RATING OF 25 OR LESS PER ASTM E-84 AND MEETS SELF EXTINGUISHING REQUIREMENTS OF ASTM D-635. THE TOP OF PANELS SHALL BE COVERED WITH A ANTI-SKID SURFACE.

21. ALL STRUCTURAL STEEL AND MISCELLANEOUS METAL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF THE LATEST (1) AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, (2) AISC CODE OF STANDARD PRACTICE, (3) SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS, (4) AISC QUALITY CERTIFICATION PROGRAM.

22. ALL STRUCTURAL STEEL W AND WT ROLLED SECTIONS SHALL CONFORM TO ASTM A992, GRADE 50 (TYP. U.N.). ALL PLATES, ANGLES, CHANNELS AND S BEAMS SHALL CONFORM TO ASTM A36, U.N. ALL HSS SHAPES SHALL CONFORM TO ASTM A500 GR.B.

23. SUFFIX (E) REPRESENTS EXISTING MEMBERS AND/OR CONSTRUCTION.

24. ALL DESIGN WELDS ARE BASED ON LOW-HYDROGEN ELECTRODE WITH A MINIMAL TENSILE STRENGTH OF 70 KSI, U.N.O.

25. ALL WELDING MATERIALS, WELDING PROCEDURES AND QUALIFICATIONS OF WELDING OPERATORS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF AWS D1.1, STRUCTURAL WELDING CODE, PREPARED BY THE AMERICAN WELDING SOCIETY (AWS).

26. ALL NUTS AND BOLTS FOR STRUCTURAL STEEL SHALL BE 3/4 " DIAMETER, HIGH STRENGTH GALVANIZED BOLTS CONFORMING TO ASTM A325SC U.N.O. THE ASSEMBLY AND INSTALLATION OF ALL NUTS, BOLTS AND WASHERS SHALL BE IN ACCORDANCE WITH AISC SPECIFICATIONS FOR STRUCTURAL JOINTS. CONNECTIONS SHALL BE SLIP CRITICAL.

27. ALL CONNECTIONS NOT DETAILED SHALL BE STANDARD SHEAR CONNECTIONS IN ACCORDANCE WITH AISC MANUAL OF STEEL CONSTRUCTION, NINTH EDITION, PART 4, PAGE 19, TABLE II, "FRAMED BEAM CONNECTIONS" WITH ANGLE WEB LEGS WELDED AS PER PART 4, PAGE 26, TABLE III, CASE 1, UNLESS NOTED OTHERWISE.

28. ALL STRUCTURAL AND MISCELLANEOUS STEEL COMPONENTS SHALL BE HOT DIP GALVANIZED. FIELD WELD JOINT(S) SHALL BE THOROUGHLY CLEANED UP AND APPLIED WITH 2 COATS OF RUST-INHIBITIVE ZINC PAINT (3 MILS MIN. EACH COAT).

29. HOIST BEAM AND MISCELLANEOUS STEEL COMPONENTS SHALL BE SHOP PAINTED WITH A RUST INHIBITIVE PRIMER SUCH AS SHERWIN-WILLIAMS "KEM KROMIC" OR EQUAL.

30. SHOP TO OMIT PAINT 2" OF ALL FIELD WELDED CONNECTIONS. FIELD TO MECHANICALLY REMOVE GALVANIZING WITHIN 2" OF ALL FIELD WELDED CONNECTIONS, AND TOUCH-UP AS REQUIRED. TOUCH-UP GALVANIZING WITH RUSTOLEUM NO. 2117 OR APPROVED EQUAL.

31. PRIOR TO INSTALLATION OF DRILL-IN ANCHORS, CONTRACTOR SHALL USE A METAL DETECTOR TO IDENTIFY THE LOCATIONS OF THE EXISTING REBARS NEAR INSTALLATION POIN' AND ADJUST ANCHOR LOCATIONS SLIGHTLY AS REQUIRED SO THAT THE EXISTING REBARS WILL NOT BE DAMAGED.

32. WHEN CUTTING THE EXISTING REINFORCEMENT OR EMBEDDED STEEL, CONTRACTOR SHALL OVERCUT THE EXISTING REINFORCEMENT OR EMBEDDED STEEL SLIGHTLY AND APPLY EPOX' PATCHING COMPOUND OVER EXPOSED STEEL TO FORM A 1/8 " OVERLAY IN ORDER TO PREVENT FUTURE CORROSION, UNLESS SHOWN OR NOTED OTHERWISE.

33. ALL WORK WITHIN THE PUMP STATION BUILDING IS TO BE INCLUDED IN THE COST OF THE FOLLOWING PAY CODE ITEMS: COMPLETE MAIN PUMP ASSEMBLY, COMPLETE LOW FLOW PUMP ASSEMBLY, PUMP STATION SCADA EQUIPMENT, PUMP STATION GENERAL WORK, PUMP STATION ELECTRICAL WORK & PUMP STATION MECHANICAL WORK. OTHER PAY CODE ITEMS LISTED IN THE SUMMARY OF QUANTITIES (SHEET G-4) ARE FOR SITEWORK OUTSIDE OF THE PUMP S"ATION BUILDING.

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-00533

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & STANDARDS

SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010
DRAWN BY: T.K.
CHECKED BY: K.F.

PLOT DATE = 3/22/2010
FILE NAME = D:\60825-sht-G-02.dgn
PLOT SCALE = 100.999998
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	3
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99

ROADWAY NOTES:

1. UTILITY LOCATIONS SHOWN ON THESE PLANS MAY NOT BE CORRECT OR COMPLETE. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH THE RESPECTIVE UTILITIES OF THE CITY OF CHICAGO. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL CUAN (CHICAGO UTILITY ALERT NETWORK): (312)744-4000 FOR UTILITY LOCATION INFORMATION.
2. 10 FOOT TRANSITION LENGTHS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS AND GUTTERS AND MEDIANS IN THE FIELD UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.
3. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
4. WHEN ARTIFICIAL LIGHTING IS USED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.
5. USE NO. 8 EPOXY-COATED TIE BARS CONFORMING TO ARTICLE 1006.10(B)(2) OF THE STANDARD SPECIFICATIONS FOR LONGITUDINAL CONSTRUCTION JOINT AS SHOWN ON IDOT STANDARD 420001 AND FOR TYING THE CURB AND GUTTER SECTIONS TO THE FRONTAGE ROAD CONCRETE PAVEMENT AS SHOWN ON THE PLANS. THE TIE BARS WILL NOT BE PAID FOR SEPARATELY. TIE BARS USED FOR LONGITUDINAL CONSTRUCTION JOINTS SHALL BE INCLUDED IN THE COST OF PCC PAVEMENT, 10" (JOINTED). TIE BARS USED WITH CURB AND GUTTER SHALL BE INCLUDED IN THE COST OF THE COMBINATION CONCRETE CURB AND GUTTER OF THE TYPE SPECIFIED.
6. USE 1-1/2" EPOXY- COATED DOWEL BARS CONFORMING TO ARTICLE 1006.11 OF THE STANDARD SPECIFICATIONS FOR TRANSVERSE CONTRACTION JOINTS AS SHOWN ON IDOT STANDARD 420001 DOWEL BARS WILL NOT BE PAID FOR SEPARATELY. DOWEL BARS USED FOR TRANSVERSE CONTRACTION JOINTS SHALL BE INCLUDED IN THE COST OF PCC PAVEMENT, 10" (JOINTED). THE SPACING OF THE TRANVERSE CONTRACTION JOINTS SHALL BE AT 15' INTERVALS. DOWEL BARS SHALL BE INSTALLED AT 12" CENTER TO CENTER.
7. THE VARIATION IN WIDTH OF THE COMBINATION CONCRETE CURB AND GUTTER AS SHOWN ON THE PLANS SHALL BE INCLUDED IN THE COST OF COMBINATION CONCRETE CURB AND GUTTER OF THE TYPE SPECIFIED.
8. COMBINATION CURB AND GUTTER REMOVAL WILL BE MEASURED PER LINEAL FOOT. THE REMOVAL OF THE EXISTING BITUMINOUS OVERLAY OF THE GUTTER WILL NOT BE MEASURED FOR PAYMENT BUT IS INCLUDED IN THE CONTRACT UNIT PRICE FOR COMBINATION CURB AND GUTTER REMOVAL.
9. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT WILL BE NO GAP WITHIN THE PROPOSED FENCING OR BETWEEN WHERE PROPOSED FENCING TERMINATES AND EXISTING FENCE REMAINS IN PLACE.
10. THE CONTRACTOR SHALL TAKE ALL NECESSARY SAFETY PRECAUTIONS TO PROTECT AND PROVIDE ACCESS TO ABUTTING PROPERLY, UTILITIES, PEDESTRIANS, AND VEHICULAR TRAFFIC.
11. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED. THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS. THE ENGINEER OR AND AUTHORIZED SURVEYOR AGENT WILL WITNESS OR OTHERWISE REFERENCE AND RESET MONUMENTS AS NECESSARY. ALL PROPERTY CORNERS EXCEPT THOSE WITHIN AREAS WHERE THE SCHEDULE IF PROVIDED, SHOWS PLACEMENT OF R.O.W. MARKERS SHALL REMAIN UNDISTURBED.
12. ALL GRADE ELEVATIONS SHOWN ARE BASED ON ELEVATIONS REFERRED TO ON ORIGINAL ROOSEVELT ROAD PUMPING STATION PLANS. EXISTING SITE PLAN (SHEET NO. G-5) INDICATES CONTROL ELEVATIONS: SPIKE IN BITUMINOUS SHOULDER AT STA 5+94.11, 18.07' LT.=ELEV.+14.69. EXISTING MANHOLE RIM AT STA 6+08.46, 2.78' LT=ELEV. +13.64
13. BITUMINOUS QUANTITIES ARE BASED ON A UNIT WEIGHT OR 114LB/SQ.YD/IN FOR BITUMINOUS REPLACEMENT OVER PATCHES.
14. THE CONTRACTOR SHALL PROTECT THE EARTH IN FRONT OF EXISTING AND PROPOSED RETAINING WALLS DURING CONSTRUCTION OF THE UNDERGROUND STORMWATER PIPES, DRAINAGE STRUCTURES, AND CONDUIT ENCASED REINFORCED CONCRETE. THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF THE RETAINING WALLS AND UNDERGROUND UTILITY WORK TO OCCUR CONCURRENTLY. IF THE CONTRACTOR DOES NOT PERFORM THE WORK CONCURRENTLY HE SHALL PROVIDE A TEMPORARY SOIL RETENTION SYSTEM TO PROTECT THE RETAINING WALL FROM BEING UNDERMINED DURING DRAINAGE SYSTEM CONSTRUCTION WHICH SHALL BE INCLUDED IN THE COST OF THE MECHANICALLY STABILIZED EARTH RETAINING WALL.
15. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF CHICAGO.
16. THE CONTRACTOR MUST USE CARE IN GRADING OR EXCAVATING NEAR ANY AND ALL EXISTING ITEMS WHICH WILL NOT BE REMOVED. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR MUST BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE.
17. THE UTILITY COMPANY/GOVERNMENT AGENCY AND IT'S CONTRACTOR ARE RESPONSIBLE FOR THE ADEQUATE PROTECTION OF THE EXISTING SEWERS, DRAIN CONNECTIONS, SEWER STRUCTURES AND BENCH MONUMENTS DURING CONSTRUCTION OF NEW UTILITIES AND/OR ADJUSTMENT TO EXISTING UTILITIES AND THE USE OF HEAVY EQUIPMENT WITHIN THE LIMITS OF THE PROJECT.
18. EXTREME CAUTION TO BE TAKEN TO ENSURE THAT NO FACILITY OWNED AND MAINTAINED BY THE CITY OF CHICAGO IS DAMAGED DURING CONSTRUCTION. IF ANY DAMAGE OCCURS TO ANY FACILITIES. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE COST OF REPAIR OR REPLACEMENT OF THE DAMAGED FACILITY.

DRAINAGE AND UTILITIES NOTES:

1. ALL PROPOSED LATERAL STORM SEWERS SHALL BE INSTALLED AT A MINIMUM OF 1% SLOPE UNLESS OTHERWISE INDICATED. CONNECTIONS TO EXISTING SEWERS OR STRUCTURES WILL BE INCLUDED WITH THE STORM SEWERS PAY ITEM.
2. PIPE UNDERDRAIN 6" (SPECIAL) SHALL BE USED FOR ALL PROPOSED UNDERDRAIN CONNECTIONS INTO EXISTING / PROPOSED DRAINAGE STRUCTURES.
3. STORM SEWER LENGTHS AND GRADES ARE CALCULATED FROM CENTER TO CENTER OF DRAINAGE STRUCTURES.
4. TOP OF FRAME ELEVATIONS ON DRAINAGE STRUCTURES SHALL BE MODIFIED TO MEET FINISHED CURB AND GUTTER FLOWLINE ELEVATIONS.
5. THE INVERT ELEVATIONS OF UNDERDRAIN CONNECTIONS TO THE EXISTING AND PROPOSED DRAINAGE STRUCTURES SHOWN SHALL BE DETERMINED BY THE CONTRACTOR BASED ON A MINIMUM LATERAL CONNECTING SLOPE OF 2%
6. FOR CLARITY, PIPE UNDERDRAIN'S IN THE PLAN VIEW ARE NOT DRAWN IN THE EXACT INSTALLATION LOCATION. SEE TYPICAL SECTIONS AND DRAINAGE DETAILS FOR EXACT PIPE UNDERDRAIN LOCATION.

LANDSCAPING NOTES:

1. THE CONTRACTOR SHALL USE CARE IN GRADING OR EXCAVATING NEAR ANY AND ALL EXISTING ITEMS WHICH WILL NOT BE REMOVED. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE.
2. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION OF EXISTING PLANT MATERIAL FOR WHICH THE CONTRACT DOES NOT PROVIDE REMOVAL. THE PROTECTION OF EXISTING PLANT MATERIAL AND THE REPAIR OR REPLACEMENT OF EXISTING PLANT MATERIALS DAMAGED BY THE CONTRACTOR SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 201 OF THE STANDARD SPECIFICATIONS.
3. SEE SHEET NO. G-7 FOR OTHER LANDSCAPING NOTES AND EROSION CONTROL NOTES

TRAFFIC CONTROL NOTES:

1. ALL TRAFFIC CONTROL AND PROTECTION WORK SHALL BE IN ACCORDANCE WITH I.D.O.T. STANDARDS FOR MAINTENANCE OF TRAFFIC AND THE CITY OF CHICAGO.
2. TRAFFIC CONTROL AND PROTECTION WORK ON UNION AVE. SHALL BE DONE AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE FOLLOWING I.D.O.T. TRAFFIC CONTROL STANDARDS: THESE STANDARDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE PRICE FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL) AS A LUMP SUM PAY ITEM: STANDARD 701701, 701801, 701901 AND DISTRICT ONE STANDARD TC-10. SEE NOTE 4.
3. TRAFFIC CONTROL AND PROTECTION WORK ON I-90/94 SHALL BE DONE AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH FOLLOWING I.D.O.T. TRAFFIC CONTROL STANDARDS: THESE STANDARDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE PRICE FOR "TRAFFIC CONTROL AND PROTECTION, EXPRESSWAYS," AS A LUMP SUM PAY ITEM: STANDARDS 701101, 701106, 701400, 701401, 701426, 701901 AND DISTRICT ONE STANDARDS TC-17, TC-18, TC-22. SEE NOTE 4
4. MAINTENANCE OF TRAFFIC ON I-90/94 AND UNION AVE. SHALL BE AS DIRECTED BY THE ENGINEER, LANE CLOSURES FOR THE REMOVAL OR PLACEMENT OF TEMPORARY OR PERMANENT PAVEMENT MARKINGS, THE PLACEMENT OR REMOVAL OF TEMPORARY CONCRETE BARRIERS, BITUMINOUS SHOULDER REMOVAL BITUMINOUS SHOULDER CONSTRUCTION, BITUMINOUS SURFACE REMOVAL, PAVEMENT PATCHING, THE PLACEMENT OF BITUMINOUS CONCRETE BINDER AND SURFACE COURSES, SHALL BE IN ACCORDANCE WITH APPROPRIATE I.D.O.T. STANDARDS. HOWEVER, METHOD OF PAYMENT SHALL BE "TRAFFIC CONTROL AND PROTECTION (SPECIAL) " LUMP SUM FOR WORK ON CITY STREETS AND "TRAFFIC CONTROL AND PROTECTION (EXPRESSWAY)" LUMP SUM FOR WORK ON I-90/94.
5. THE CONTRACTOR IS REQUIRED TO SECURE A PERMIT FROM THE CITY OF CHICAGO FOR ANY WORK REQUIRING CHICAGO STREET LANE CLOSURES. QUESTIONS CONCERNING THIS PERMIT SHOULD BE REFERRED TO MR. MIKE SIMON, ROOM 905, CITY HALL, 121 NORTH LASALLE STREET, CHICAGO, IL. (312)744-4625.
6. MAINTENANCE OF TRAFFIC - GENERAL: TRAFFIC CONDITIONS, ACCIDENTS AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT, MODIFY OR REMOVE LANE CLOSURES OR CHANNELIZATION SHOWN IN THE PLANS. THE CONTRACTOR SHALL MAKE THE NECESSARY ADJUSTMENTS AS DIRECTED BY THE ENGINEER WITHOUT DELAY.
7. SIDEWALK CLOSURE SHALL BE IN ACCORDANCE WITH I.D.O.T. STANDARD 70181.
8. ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH I.D.O.T. STANDARD 701901.
9. CONTRACTOR SHALL CONTACT THE IDOT TRAFFIC CONTROL SUPERVISOR AT (847)-705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICE.

PUMP STATION TRUCK LOT AND TRANSFORMER PAD WORK (MECHANICALLY STABILIZED EARTH RETAINING WALL CONSTRUCTION) WILL BE PERFORMED AS A SEPARATE CONTRACT.

THE CONTRACTOR SHALL COORDINATE HIS/HER WORK WITH THE PUMP STATION TRUCK LOT AND TRANSFORMER PAD CONTRACTOR IN ACCORDANCE WITH ARTICLE 105.08 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.

Rev.

REVISIONS NAME	DATE

Stanley Consultants INC.
650 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-000533

ILLINOIS DEPARTMENT OF TRANSPORTATION

NOTES

SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010

DRAWN BY: T.K.
CHECKED BY: K.F.

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-ant-d-03.dgn
PLOT SCALE = 1d
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	4
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99

SUMMARY OF QUANTITIES

URBAN 100% STATE 100%

CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY
~~20100110~~	~~TREE REMOVAL (6 TO 15 UNITS DIAMETER)~~	~~UNIT~~	~~30~~
~~20200100~~	~~EARTH EXCAVATION~~	~~CU YD~~	~~100~~
~~20400800~~	~~FURNISHED EXCAVATION~~	~~CU YD~~	~~301~~
~~20800150~~	~~TRENCH BACKFILL~~	~~CU YD~~	~~130~~
~~21101615~~	~~TOPSOIL FURNISH AND PLACE, 4"~~	~~SQ YD~~	~~449~~
~~25000210~~	~~SEEDING, CLASS 2A~~	~~ACRE~~	~~0.1~~
~~25000400~~	~~NITROGEN FERTILIZER NUTRIENT~~	~~POUND~~	~~10~~
~~25000500~~	~~PHOSPHORUS FERTILIZER NUTRIENT~~	~~POUND~~	~~10~~
~~25000600~~	~~POTASSIUM FERTILIZER NUTRIENT~~	~~POUND~~	~~10~~
~~25100630~~	~~EROSION CONTROL BLANKET~~	~~SQ YD~~	~~449~~
~~25000250~~	~~TEMPORARY EROSION CONTROL SEEDING~~	~~POUND~~	~~10~~
~~25000400~~	~~PERIMETER EROSION BARRIER~~	~~FOOT~~	~~225~~
28000510	INLET FILTERS	EACH	4
~~40600290~~	~~BITUMINOUS MATERIALS (PRIME COAT)~~	~~TON~~	~~0.2~~
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	6
~~42000501~~	~~PORTLAND CEMENT CONCRETE PAVEMENT 10" (JOINTED)~~	~~SQ YD~~	~~207~~
~~42001200~~	~~PAVEMENT FABRIC~~	~~SQ YD~~	~~230~~
42001300	PROTECTIVE COAT	SQ YD	291
~~42001600~~	~~PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 10 INCH, SPECIAL~~	~~SQ YD~~	~~22~~
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	88
~~42400500~~	~~PORTLAND CEMENT CONCRETE SIDEWALK, SPECIAL~~	~~SQ FT~~	~~200~~
44000300	CURB REMOVAL	FOOT	30
~~44000500~~	~~COMBINATION CURB AND GUTTER REMOVAL~~	~~FOOT~~	~~121~~
44000600	SIDEWALK REMOVAL	SQ FT	88
44002218	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 4 1/2"	SQ YD	24
44004250	PAVED SHOULDER REMOVAL	SQ YD	37
44201373	CLASS C PATCHES, TYPE I, 12 INCH	SQ YD	10
44201377	CLASS C PATCHES, TYPE II, 12 INCH	SQ YD	10
~~44200607~~	~~HOT-MIX ASPHALT SHOULDERS, 10"~~	~~SQ YD~~	~~19~~
~~50102400~~	~~CONCRETE REMOVAL~~	~~CU YD~~	~~6~~
~~50200100~~	~~STRUCTURE EXCAVATION~~	~~CU YD~~	~~14~~
50604200	CLEANING AND PAINTING STEEL RAILING NO. 1	L SUM	1
~~51205200~~	~~TEMPORARY SHEET PILING~~	~~SQ FT~~	~~112~~
550A0140	STORM SEWERS, CLASS A, TYPE 1 30"	FOOT	15
~~60100600~~	~~CONCRETE HEADWALL FOR PIPE DRAINS~~	~~EACH~~	~~1~~
~~60100200~~	~~PIPE UNDERDRAINS 6" (SPECIAL)~~	~~FOOT~~	~~12~~
~~60100562~~	~~PIPE UNDERDRAINS FOR STRUCTURES 6"~~	~~FOOT~~	~~126~~
~~60200605~~	~~CATCH BASINS, TYPE A, 5' DIAMETER, TYPE 1 FRAME, OPEN LID~~	~~EACH~~	~~1~~
~~60201600~~	~~MANHOLES, TYPE A, 5' DIAMETER, TYPE 1 FRAME, OPEN LID~~	~~EACH~~	~~1~~
60600605	CONCRETE CURB, TYPE B	FOOT	30
~~60603600~~	~~COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12~~	~~FOOT~~	~~124~~
66400565	CHAIN LINK FENCE, 7' (SPECIAL)	FOOT	22
~~66410600~~	~~CHAIN LINK FENCE REMOVAL~~	~~FOOT~~	~~92~~
66411900	TEMPORARY FENCE	FOOT	220
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	10
67100100	MOBILIZATION	L SUM	1
70101800	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	6
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	170
X0301028	PUMP STATION SCADA EQUIPMENT	L SUM	1
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	18
X0323426	SEDIMENT CONTROL, DRAINAGE STRUCTURE INLET FILTER CLEANING	EACH	12
~~X0323660~~	~~DRAINAGE RESTRICTOR~~	~~EACH~~	~~1~~
X0323880	COMPLETE SPARE MAIN PUMP ASSEMBLY	L SUM	1
~~X0325303~~	~~STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)~~	~~SQ FT~~	~~61~~
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	18
X0335700	PUMP STATION GENERAL WORK	L SUM	1

SUMMARY OF QUANTITIES

URBAN 100% STATE 100%

CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY
~~X0350800~~	~~BOLLARDS~~	~~EACH~~	~~5~~
~~X0517400~~	~~STORM SEWERS, DUCTILE IRON PIPE, 8"~~	~~FOOT~~	~~24~~
X0783300	PUMP STATION ELECTRICAL WORK	L SUM	1
X0783500	PUMP STATION MECHANICAL WORK	L SUM	1
~~X7011615~~	~~TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)~~	~~L SUM~~	~~1~~
~~X7013820~~	~~TRAFFIC CONTROL SURVEILLANCE (EXPRESSWAYS)~~	~~CAL DA~~	~~155~~
X8040305	ELECTRICAL SERVICE CONNECTION	L SUM	1
~~Z0001050~~	~~AGGREGATE SUBGRADE 12"~~	~~SQ YD~~	~~250~~
Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	3
~~Z0034210~~	~~MECHANICALLY STABILIZED EARTH RETAINING WALL~~	~~SQ FT~~	~~1,315~~
~~Z0070600~~	~~TRAINEES~~	~~HOUR~~	
X0326957	COMPLETE SPARE LOW FLOW PUMP ASSEMBLY	L SUM	1
~~X0326519~~	~~STEEL RAILING REMOVAL~~	~~FOOT~~	~~23~~
~~X0326963~~	~~FURNISHING AND ERECTING STEEL RAILING, SPECIAL~~	~~FOOT~~	~~120~~
~~66400585~~	~~CHAIN LINK FENCE, ATTACHED TO STRUCTURE, SPECIAL~~	~~FOOT~~	~~56~~
66403705	CHAIN LINK GATES, 7'X4' SINGLE, SPECIAL	EACH	2
66404505	CHAIN LINK GATES, 7'X12' SINGLE, SPECIAL	EACH	1
~~66408405~~	~~CHAIN LINK GATES, 7'X10' DOUBLE, SPECIAL~~	~~EACH~~	~~1~~ 7
~~66408505~~	~~CHAIN LINK GATES, 7'X12' DOUBLE, SPECIAL~~	~~EACH~~	~~1~~
X0326958	CONDUIT ENCASED, REINFORCED CONCRETE, 1 - 5" DIA. AND 6 - 4" DIA., PVC	FOOT	160
X0326959	CONDUIT ENCASED, REINFORCED CONCRETE, 1 - 5" DIA. AND 6 - 4" DIA., RGC	FOOT	16
~~X0326960~~	~~RELOCATE EXISTING ANTENNA AND FOUNDATION (HIGHWAY ADVISORY RADIO)~~	~~EACH~~	~~1~~
50606400	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	L SUM	1
~~X0326962~~	~~TRANSFORMER PLATFORM~~	~~SQ YD~~	~~38~~

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-sht-G-04.dgn
PLOT SCALE = 1i
USER NAME = #USER#

Stanley Consultants INC.
650 West Higgins Road, Suite 730, Chicago, Illinois 60633-2801
www.stanleygroup.com
Illinois Firm Registration No. 184-00533

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

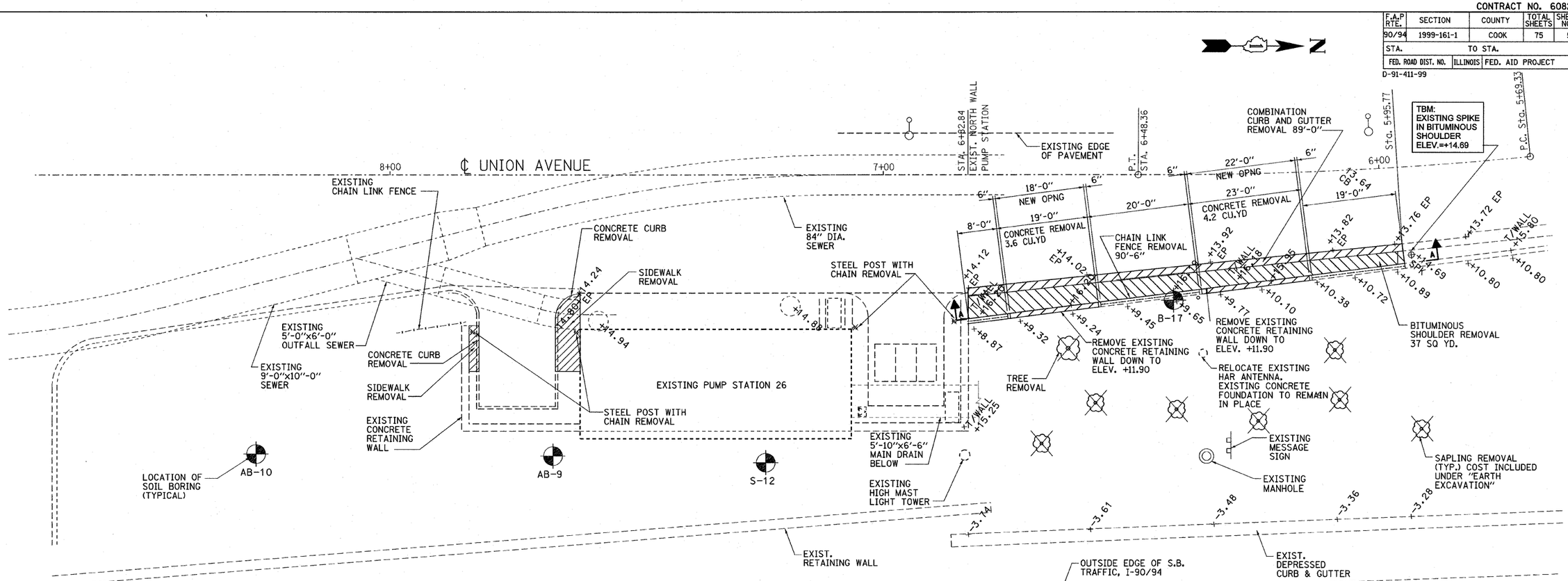
SUMMARY OF QUANTITIES

SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010
DRAWN BY: T.K.
CHECKED BY: K.F.

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	5
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



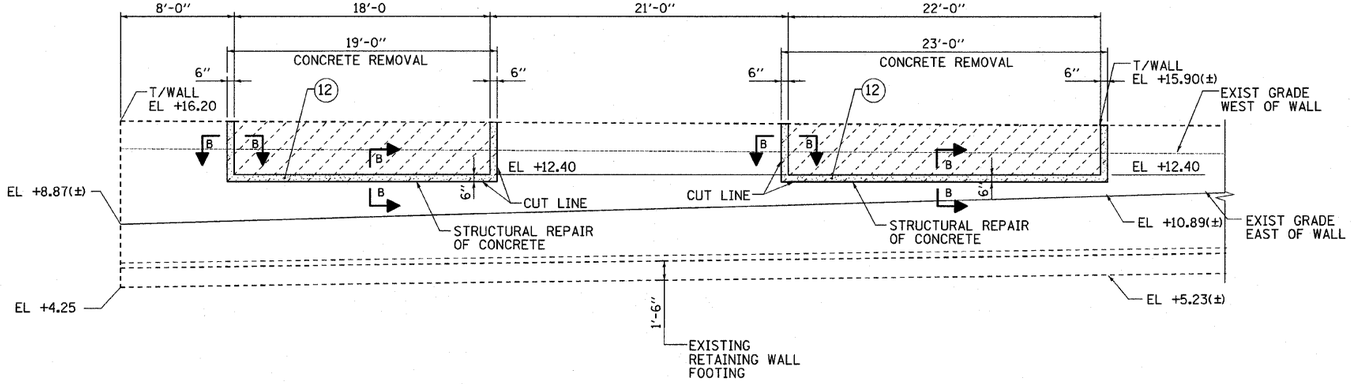
EXISTING PLAN

SCALE: 1"=10'-0"

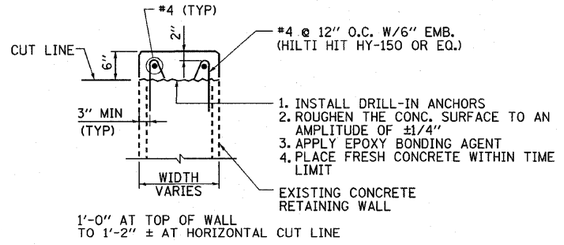
SEE DWG S-13
FOR SOIL BORING LOG

NOTES:

1. CONTRACTOR TO FURNISH AND INSTALL TEMPORARY FENCE, 220 FT, ALONG UNION AVE WEST OF CURB. LOCATIONS TO BE ADJUSTED AS REQUIRED DURING CONSTRUCTION.
2. SEE SHEET G-6 FOR LEGEND.



EXISTING CONCRETE RETAINING WALL – LOOKING WEST
ELEVATION A-A



DETAIL B-B

0 10' 20' 30' — 1"= 10'

REVISIONS	
NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No. 184-000533

ILLINOIS DEPARTMENT OF TRANSPORTATION

EXISTING SITE PLAN

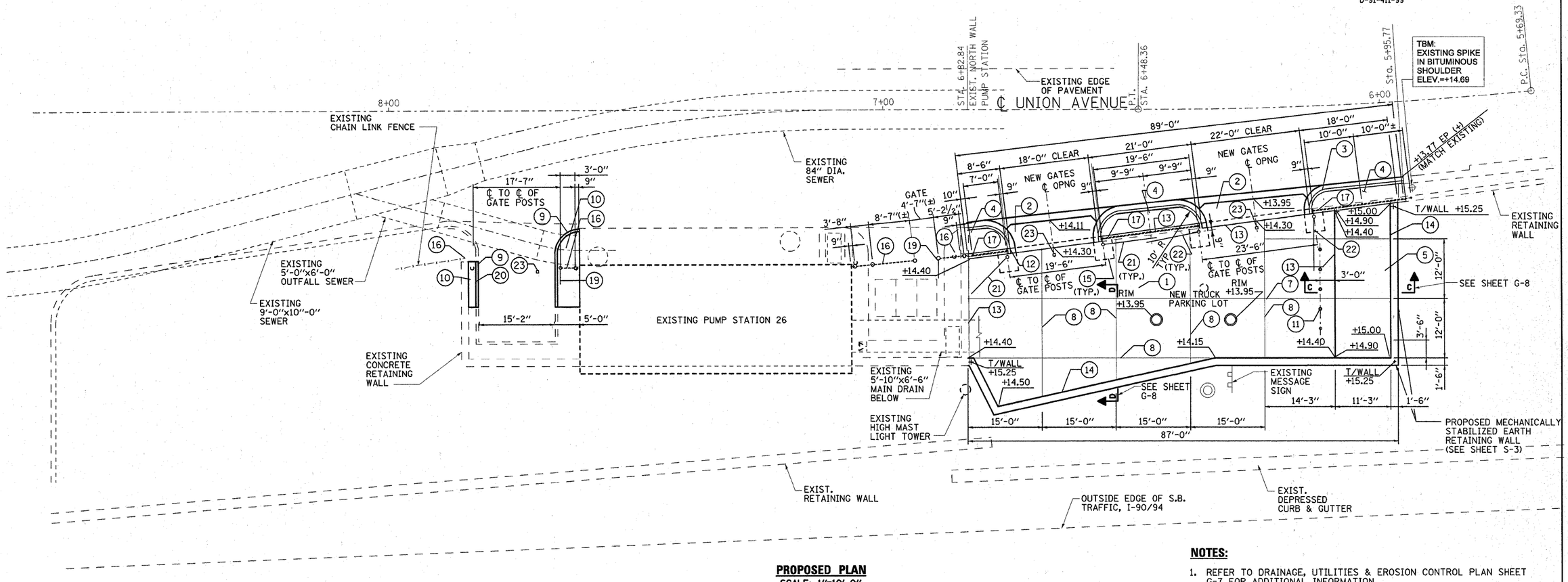
SCALE: VERT. 1"=10' HORIZ.
DATE: 3/23/2010
DRAWN BY: T.K.
CHECKED BY: K.F.

PLOT DATE = 3/22/2010
FILE NAME = D:\08828-sht-G-05.dgn
PLOT SCALE = 1.00
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	6
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



PROPOSED PLAN
SCALE: 1"=10'-0"

NOTES:

1. REFER TO DRAINAGE, UTILITIES & EROSION CONTROL PLAN SHEET G-7 FOR ADDITIONAL INFORMATION.

LEGEND:

1. PORTLAND CEMENT CONCRETE PAVEMENT, 10" (JOINTED) WITH PAVEMENT FABRIC OVER AGGREGATE SUBGRADE, 12"
2. PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 10" SPECIAL (WITH PAVEMENT FABRIC) OVER AGGREGATE SUBGRADE 12"
3. COMBINATION CONCRETE CURB & GUTTER, TYPE B-6-12
4. HOT MIX ASPHALT SHOULDERS, 10"
5. TRANSFORMER PLATFORM

   COST OF PORTLAND CEMENT CONCRETE, REINFORCEMENT BARS & AGGREGATE BASE COURSE, TYPE B, 8" TO BE INCLUDED IN COST OF TRANSFORMER PLATFORM.

6. ITEM NOT USED
7. SAWED LONGITUDINAL JOINT IN ACCORDANCE WITH STANDARD 420101
8. TRANSVERSE CONTRACTION IN ACCORDANCE WITH STANDARD 420101
9. CONCRETE CURB, TYPE B
10. PCC SIDEWALK, 5"
11. BOLLARD (CONCRETE FILLED STEEL PIPE BOLLARDS @ 4'-0" O.C.) SEE DETAIL, SHEET G-8
12. STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5")
13. ¾" PREFORMED JOINT FILLER
14. ¾" PREFORMED JOINT FILLER WITH SEALANT AT TOP
15. CONCRETE FOOTING AND PIER FOUNDATION FOR GATE POST ADJACENT TO EXISTING CONCRETE RETAINING WALL (SEE DETAIL C, SHEET NO. G-8)

    COST OF CONCRETE FOOTING AND PIER FOUNDATIONS FOR GATE POSTS TO BE INCLUDED IN THE COST OF THE RESPECTIVE GATE PAY ITEMS.

16. CHAIN LINK FENCE, 7' (SPECIAL)
17. CHAIN LINK FENCE WITH BARBED WIRE, POSTS ATTACHED TO STRUCTURE (SPECIAL)
18. NOT USED
19. CHAIN LINK GATE, 7'x4' SINGLE WITH BARBED WIRE
20. CHAIN LINK GATES, 7'x12' SINGLE WITH BARBED WIRE
21. CHAIN LINK GATES, 7'x10' DOUBLE WITH BARBED WIRE
22. CHAIN LINK GATES, 7'x12' DOUBLE WITH BARBED WIRE
23. PLUNGER ROD CUP EMBEDDED IN CONCRETE (TYPICAL AT MEETINGS AT DOUBLE GATES)

×EP+13.89 EXISTING ELEVATION

+13.95 PROPOSED ELEVATION

0 10' 20' 30' — 1"= 10'

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED SITE PLAN

SCALE: VERT. 1"=10' HORIZ.
DATE: 3/2/2010

DRAWN BY: T.K.
CHECKED BY: K.F.

PLOT DATE = #DATE#
FILE NAME = #FILEL#
PLOT SCALE = #SCALE#
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	7
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99

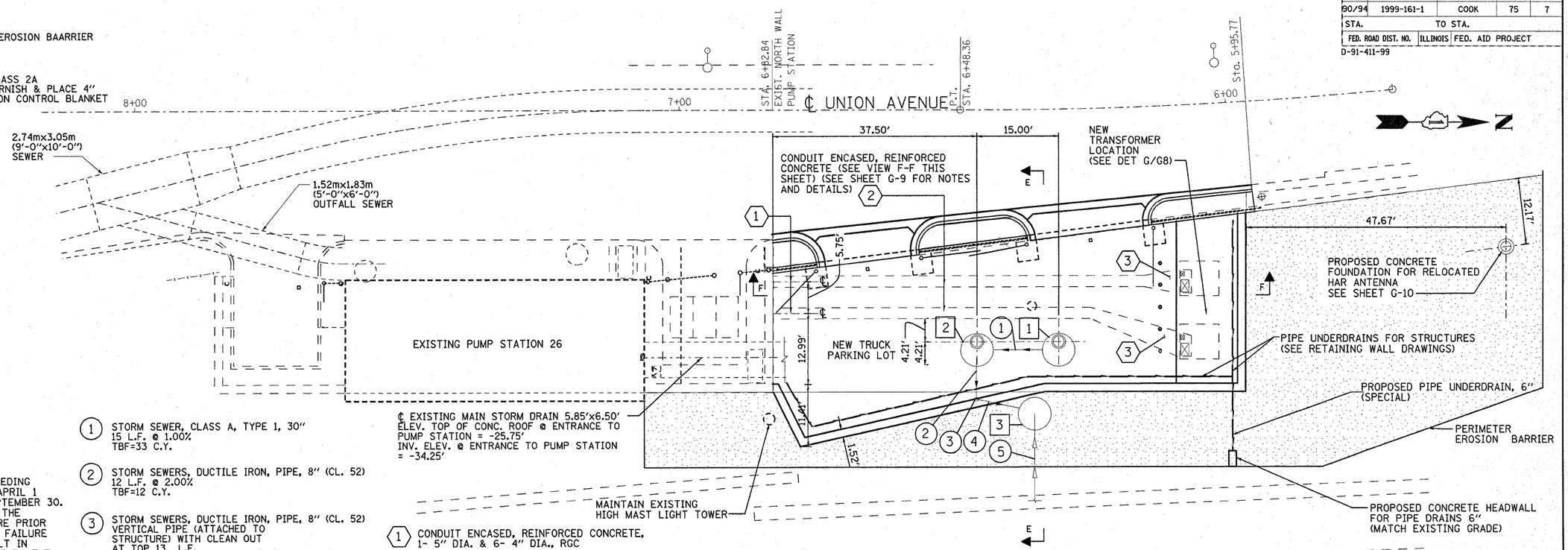
PERIMETER EROSION BAARRIER

SEEDING, CLASS 2A
TOPSOIL FURNISH & PLACE 4"
WITH EROSION CONTROL BLANKET

1 MANHOLE, TYPE A, 5' DIA
WITH TYPE 1 FRAME, OPEN LID
RIM EL= +13.95
INV EL(S)= +3.67

2 CATCH BASIN, TYPE A, 5' DIA.
WITH TYPE 1 FRAME, OPEN LID.
WITH 2½" DIA. VORTEX RESTRICTOR
(RELEASE RATE=0.15 CFS)
RIM EL.= +13.95
INV EL(N)= +3.58
INV EL(E)= +3.50

3 MANHOLE (EXISTING) ✱
WITH FRAME AND CLOSED LID
(DOWN TO MAIN STORM
DRAIN BELOW)
RIM. EL= -3.95
INV.EL.(SW) = -8.12 (PROPOSED)
INV EL (E) = -12.50± (EXISTING) ✱
(CORE S.W. OPENING. COST OF
CORING EXISTING MANHOLE (AND
CONNECTION) TO BE INCLUDED IN
COST OF STORM SEWER)
✱ VERIFY IN FIELD



DRAINAGE, UTILITIES & EROSION CONTROL PLAN

1 STORM SEWER, CLASS A, TYPE 1, 30"
15 L.F. @ 1.00%
TBF=33 C.Y.

2 STORM SEWERS, DUCTILE IRON, PIPE, 8" (CL. 52)
12 L.F. @ 2.00%
TBF=12 C.Y.

3 STORM SEWERS, DUCTILE IRON, PIPE, 8" (CL. 52)
VERTICAL PIPE (ATTACHED TO
STRUCTURE) WITH CLEAN OUT
AT TOP 13 L.F.

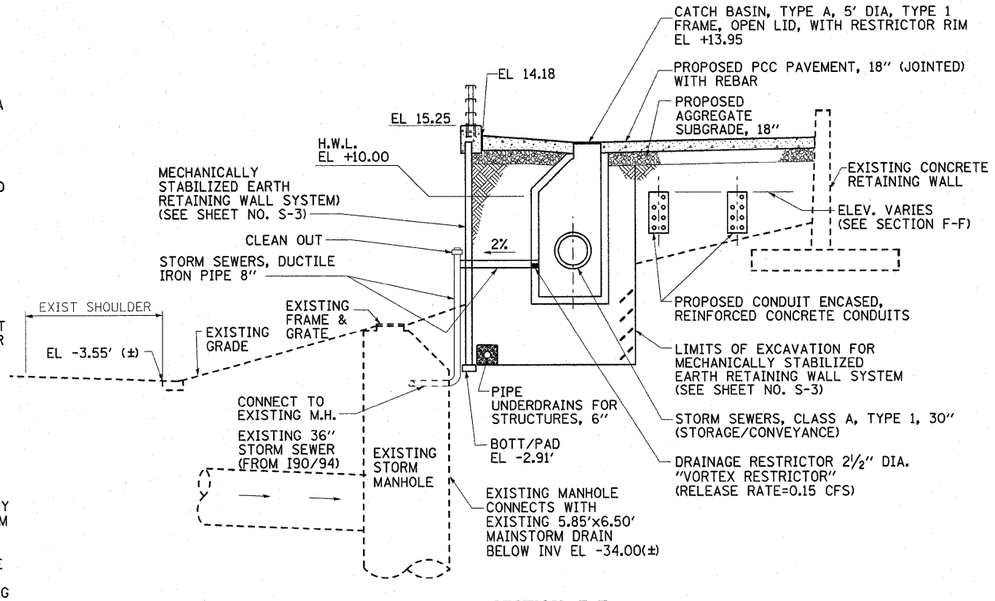
4 STORM SEWERS, DUCTILE IRON, PIPE, 8" (CL. 52)
10 L.F. @ 2.00%

5 36" RCCP (EXISTING)
(FROM I90/94 DRAINAGE)

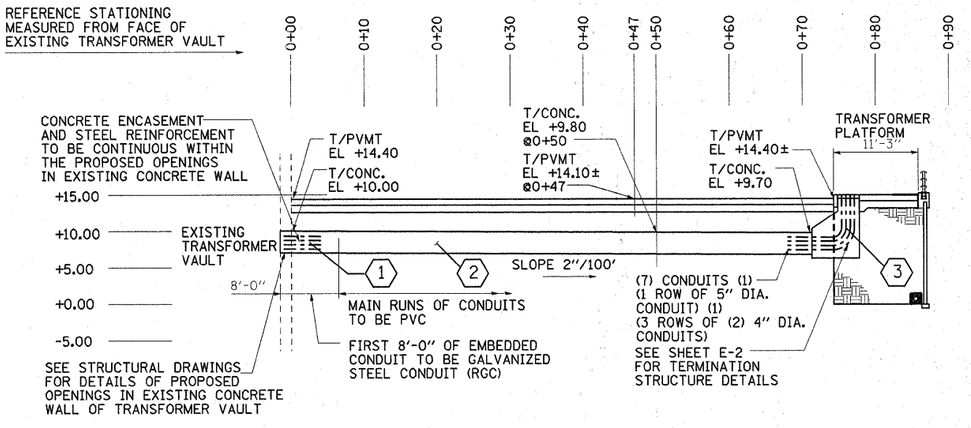
1 CONDUIT ENCASED, REINFORCED CONCRETE,
1- 5" DIA. & 6- 4" DIA., RGC

2 CONDUIT ENCASED REINFORCED CONCRETE,
1- 5" DIA. & 6- 4" DIA., PVC

3 CONDUIT ENCASED REINFORCED CONCRETE,
TERMINATION STRUCTURE
(COST TO BE INCLUDED IN COST OF 2)
SEE SHEET E-2 FOR DETAILS



SECTION E–E



SECTION F–F – CONDUIT ENCASED, REINFORCED CONCRETE

LANDSCAPING NOTES:

1. THE SEEDING DATES FOR BARE EARTH SEEDING OF MIXTURE CLASS 2A SHALL BE FROM APRIL 1 TO JUNE 1 AND FROM AUGUST 15 TO SEPTEMBER 30. ALL SEEDING NOT SHOWN ACCORDING TO THE SPECIFIED SEASONAL DATE SHALL REQUIRE PRIOR WRITTEN APPROVAL FROM THE ENGINEER. FAILURE TO SECURE SUCH APPROVAL SHALL RESULT IN REJECTION OF SEEDING AND REPLACEMENT BY THE CONTRACTOR AT HIS/HER EXPENSE.
2. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION OF EXISTING PLANT MATERIAL FOR WHICH THE CONTRACT DOES NOT PROVIDE REMOVAL. THE PROTECTION OF THE EXISTING PLANT MATERIAL AND THE REPAIR OR REPLACEMENT OF EXISTING PLANT MATERIAL DAMAGED BY THE CONTRACTOR SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 201 OF THE STANDARD SPECIFICATIONS.

EROSION CONTROL NOTES:

1. EROSION CONTROL ITEMS ARE CONSIDERED TO BE A HIGH PRIORITY ON THIS CONTRACT. THE ENGINEER WILL IMPLEMENT ALL PROVISIONS OF THE SPECIFICATION NECESSARY TO ASSURE THAT EROSION CONTROL ITEMS ARE CONSTRUCTED AND MAINTAINED IN A TIMELY WAY. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES.
2. THE EROSION CONTROL MEASURES SHOWN ARE BUT A GRAPHICAL REPRESENTATION OF SUGGESTED MEASURES. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A SOIL EROSION AND SEDIMENTATION CONTROL PLAN TO ENSURE THAT NO SEDIMENT LEAVES THE CONSTRUCTION SITE.
3. THE CONTRACTOR WILL BE REQUIRED TO IMPLEMENT AND MAINTAIN SEDIMENT CONTROL MEASURES PRIOR TO STRIPPING EXISTING VEGETATION.
4. TEMPORARY EROSION CONTROL SEEDING WILL BE APPLIED AT A RATE OF 100 POUNDS PER ACRE.
5. PROVIDE TEMPORARY INLET AND PIPE PROTECTION AT ALL CATCH BASINS, MANHOLES AND END SECTIONS IN ACCORDANCE WITH IDOT STANDARDS AND SPECIFICATIONS.
6. CONTRACTOR SHALL PERFORM INSPECTION OF SOIL EROSION CONTROL MEASURES AT LEAST ONCE EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.5 INCHES OF GREATER RAINFALL.
7. VEGETATIVE COVER SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT AND RE-SEEDED AS NECESSARY TO ESTABLISH GOOD GROWTH, INCLUDING ADEQUATE WATERING AND FERTIZER.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DRAINAGE, UTILITIES & EROSION CONTROL PLAN

0 10' 20' 30' — 1"= 10'

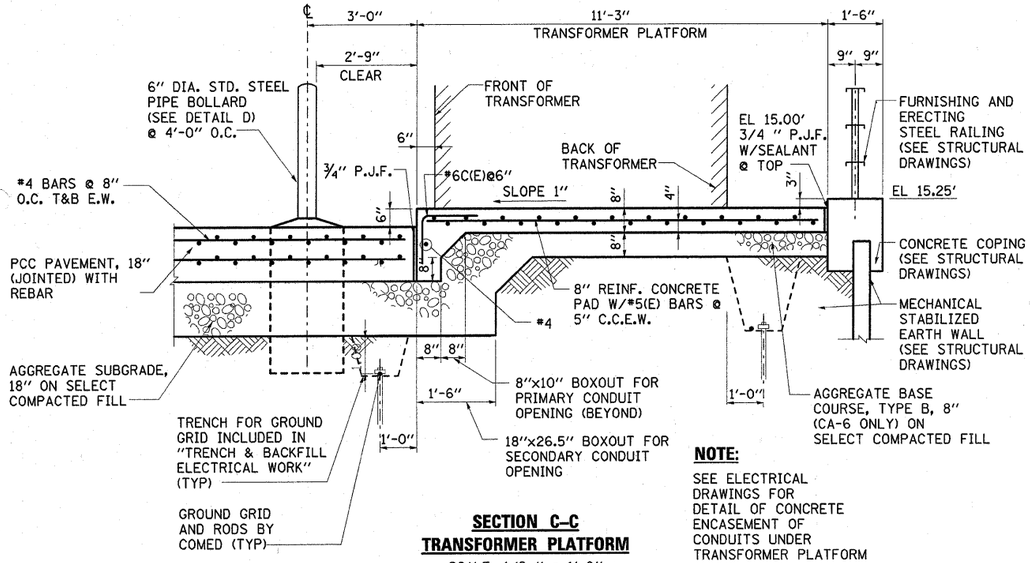
SCALE: VERT. 1"=10' HORIZ.
DRAWN BY: T.K.
DATE: 3/2/2010
CHECKED BY: K.F.

PLOT DATE = #DATE#
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	8
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



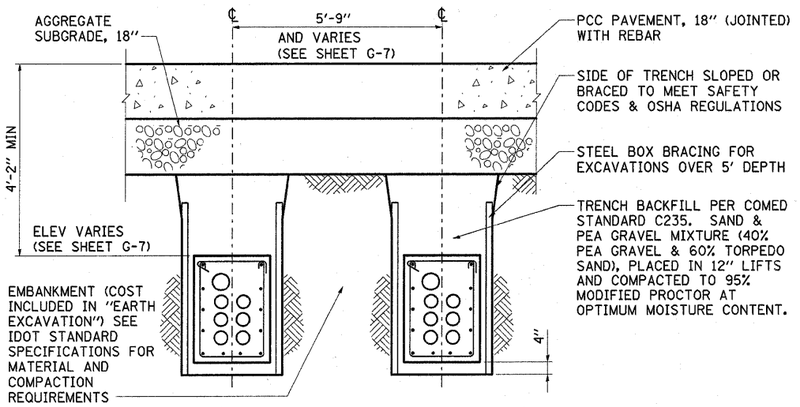
SECTION C–C
TRANSFORMER PLATFORM

SCALE: 1/2 " = 1'-0"

(REFER TO SHEET G-6 AND TRANSFORMER PLATFORM PLAN ON THIS SHEET)

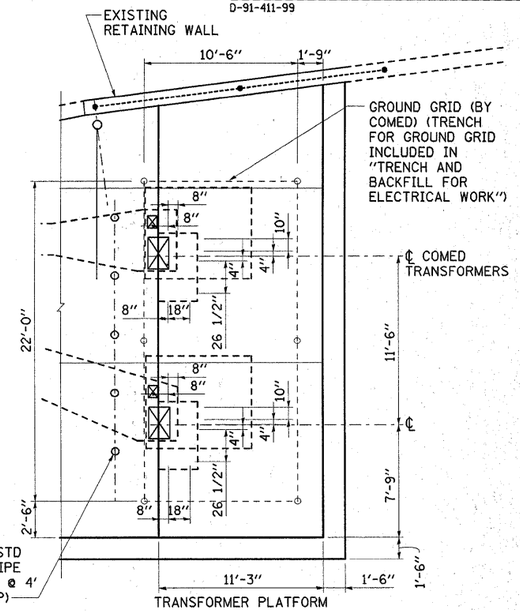
NOTE:

SEE ELECTRICAL DRAWINGS FOR DETAIL OF CONCRETE ENCASEMENT OF CONDUITS UNDER TRANSFORMER PLATFORM



TYPICAL ELECTRICAL DUCTBANK UNDER PAVEMENT

SCALE: 1/2" = 1'-0"

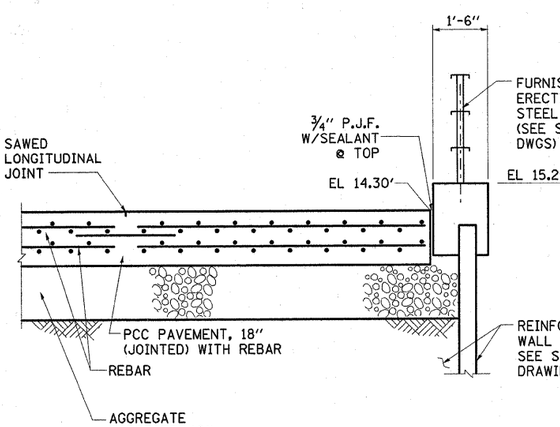


NOTES:

1. SEE COMED STANDARD C5286.J FOR ADDITIONAL NOTES AND DETAILS. VERIFY OPENING DIMENSIONS AND LOCATIONS WITH COMED.
2. SEE SHEET E-2 FOR CONDUIT TERMINAL DETAILS.

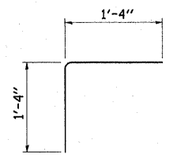
PLAN DETAIL G
TRANSFORMER PLATFORM PLAN

NO SCALE

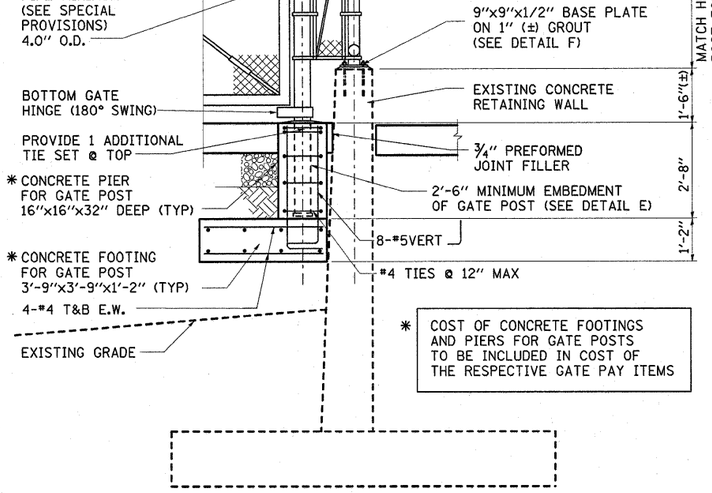


SECTION D–D

SCALE: 1/2" = 1'-0"

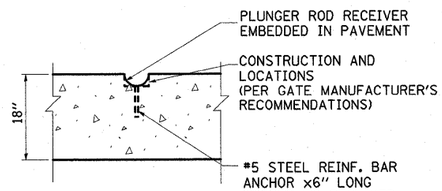


BAR C



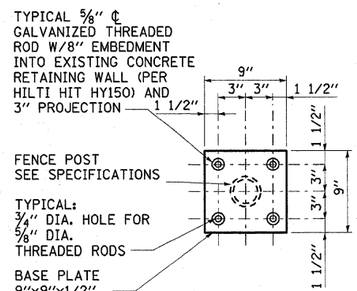
DETAIL C – TYPICAL GATE POST ADJACENT TO WALK

SCALE: 1/2" = 1'-0"



GATE PLUNGER ROD RECEIVER DETAIL FOR CAST IN PLACE PLUNGER

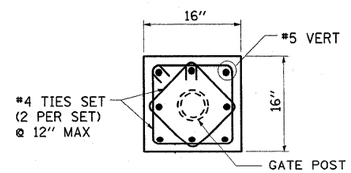
SCALE: 1 1/2" = 1'-0"



DETAIL F

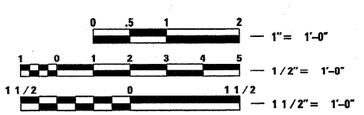
SCALE: 1 1/2" = 1'-0"

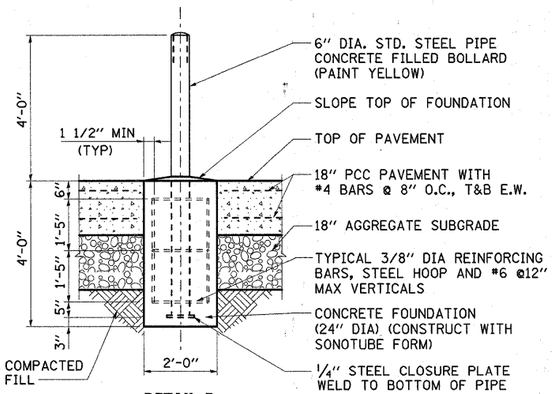
TYPICAL BASE PLATE FOR FENCE POST MOUNTED ON EXISTING RETAINING WALL



DETAIL E

SCALE: 1" = 1'-0"





DETAIL D
TYPICAL STEEL PIPE BOLLARD

SCALE: 1/2" = 1'-0"

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SITE DETAILS

SCALE: VERT. AS NOTED
HORIZ.
DATE: 3/2/2010

DRAWN BY: T.K.
CHECKED BY: K.F.

PLOT DATE = &DATE&
FILE NAME = &FILE&
PLOT SCALE = &SCALE&
USER NAME = &USER&

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	9
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99

APPLICATION

THESE NOTES COVER THE PROCEDURE TO BE FOLLOWED WHEN INSTALLING CONCRETE ENCASED CONDUIT BY THE MONOLITHIC METHOD. THIS METHOD CONSISTS OF BUILDING UP THE LAYERS OF CONDUIT ON SPACERS AND THEN POURING THE CONCRETE ENCASEMENT IN A MONOLITHIC MASS.

REFERENCE MADE TO "COMED STANDARD C4171, CONDUIT RUN INSTALLATION, MONOLITHIC METHOD", MODIFIED FOR PROJECT SPECIFIC CONDITIONS FOR ADDITIONAL REQUIREMENTS.

GENERAL

FOR TYPE AND SIZE OF CONDUIT REFER TO ELECTRICAL DRAWINGS.

SPLIT CONDUIT SHALL BE USED TO REBUILD OR CHANGE THE LOCATION OF EXISTING DUCTS THAT CONTAIN CABLES, AS SHOWN IN COMED STANDARD C4175.

CONNECTIONS FOR CONDUIT OF DIFFERENT SIZES AND MATERIALS ARE SHOWN ON COMED STANDARDS C4162 AND C4163.

ALL CONDUIT WITH BROKEN ENDS SHALL BE CUT, AND USED WHENEVER POSSIBLE.

TRENCH PREPARATION

THE PREPARATION OF THE TRENCH FOR CONDUIT RUNS SHALL BE AS PRESCRIBED IN CONSTRUCTION STANDARD C4050. WHERE UNSTABLE SOIL IS ENCOUNTERED, CONDUIT SHALL BE PLACED ON A CONCRETE BASE, LAYING THE CONDUIT AFTER THE CONCRETE IS LEVELED AND STARTS TO SET. AT THIS POINT THE BASE OF THE CONCRETE WILL SUPPORT THE CONDUIT AND PERMIT THE BASE SPACERS TO BE DEPRESSED AND TO FIND AN EVEN BEARING WHILE THE BASE CONCRETE IS STILL YEILDING. THE BASE CONCRETE IS BY VOLUME: 1 PART PORTLAND CEMENT EM48000, 3 PARTS #2 TORPEDO SAND EM48002, AND 5 PARTS 3/4 INCH TO #4 GRAVEL (NOT CRUSHED STONE) EM48005.

IF THE CONDUIT DOES NOT REST ON UNDISTURBED EARTH WITHIN 3 FEET OF MANHOLE OR VAULT, BRIDGE THE GAP TO THE UNDISTURBED EARTH WITH A 6 INCH BASE OF REINFORCED CONCRETE. THIS CONCRETE SHALL BE A "DENSE SHEATHING" WITH #4 REINFORCING BARS ON 6 INCH CENTERS, 3 INCHES FROM THE BOTTOM. CONCRETE MIX FOR SHEATHNG

(a) READY-MIXED

READY MIXED CONCRETE DELIVERED TO THE JOB SHALL BE SPECIFIED AS 3000 POUNDS PER SQUARE INCH MINIMUM (AT 28 DAYS) CONCRETE. THE COARSE AGGREGATE SHALL BE PEA GRAVEL. THE FINE AGGREGATE SHALL BE #2 TORPEDO SAND, EM48002. SLUMP AT POINT OF DELIVERY SHALL NOT BE MORE THAN 4 INCHES NOR LESS THAN 2 INCHES.

MINIMUM CEMENT CONTENT SHALL BE 3 1/2 BAGS OF TYPE 1 PORTLAND CEMENT PER CUBIC YARD. FLY ASH SHALL BE INCORPORATED IN THE MIX ON THE BASIS OF 20 POUNDS PER SACK OF CEMENT. INCLUDE AIR ENTRAINMENT AGENT TO ENTRAIN BETWEEN 4 AND 6 PERCENT OF AIR IN CONCRETE.

EXCEPT AS OTHERWISE DESIGNATED IN THIS STANDARD, READY-MIXED CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF SPECIFICATIONS FOR READY-MIXED CONCRETE (ASTM C94 LATEST EDITION). READY-MIXED CONCRETE SHALL BE PLACED WITHIN 1 HOUR AFTER WATER HAS BEEN ADDED TO THE MIX.

(b) BATCH-MIXED

WHEN THE CONCRETE IS MIXED ON THE JOB, A PREBAGGED CEMENT MIX CONSISTING BY WEIGHT OF 70 PERCENT PORTLAND CEMENT AND 30 PERCENT FLY ASH SHALL NORMALLY BE USED. THE CONCRETE MIX PROPORTIONS BY VOLUME (RODDED SATURATED SURFACE DRY BASIS) SHALL BE 1 PART OF PREBAGGED MIX (1 BAG IS 1 CUBIC FOOT), 3 1/2 PARTS #2 TORPEDO SAND EM48D02, AND 2 1/2 PARTS
PEA GRAVEL. MAXIMUM WATER CONTENT, INCLUDING FREE SURFACE MOISTURE IN AGGREGATES, SHALL NOT EXCEED 7 GALLONS PER BAG OF CEMENT MIX. SLUMP SHALL BE AS SPECIFIED ABOVE UNDER READY-MIXED CONCRETE.

IN THE EVENT THAT THE PREBAGGED CEMENT MIX IS NOT AVAILABLE, 1 BAG OF TYPE I PORTLAND CEMENT (EM48000) SHALL BE SUBSTITUTED FOR 1 BAG OF THE CEMENT MIX. WATER CONTENT, SLUMP, AND CONCRETE MIX PROPORTIONS SHALL REMAIN AS STATED IN THE PRECEDING PARAGRAPH.

THE AGGREGATES SHALL BE MEASURED BEFORE BEING PUT IN THE MIXER, AND SHALL BE IN SUCH PROPORTIONS THAT ONE FULL BAG OF CEMENT WILL BE USED IN EACH BATCH. ALL CONCRETE SHALL BE MIXED FOR A MINIMUM OF TWO MINUTES IN A MACHINE MIXER.

HAND MIXING SHALL NOT BE DONE EXCEPT BY SPECIAL PERMISSION OF THE ENGINEER. NO MORTAR OR CONCRETE SHALL BE "RETEMPERED" EITHER BY REMIXING OR BY THE ADDITION OF ANY MATERIALS OR ADMIXTURES. THE DRUM OF THE MIXER SHALL BE COMPLETELY EMPTIED BEFCRE RECEMNG MATERIALS FOR THE SUCCEEDING BATCH. CONCRETE THAT HAS OBTAINED ITS INITIAL SET BEFORE BEING PLACED SHALL BE DISCARDED AND NOT USED ON THE JOB.

COLD WEATHER CONCRETING (BELOW 40° F)

INGREDIENTS OF CONCRETE POURED WHEN THE SURROUNDING AIR IS BELOW 40° F SHALL BE HEATED SO THAT THE TEMPERATURE OF THE CONCRETE AFTER PLACEMENT IS NEITHER LOWER THAN 55° F NOR GREATER THAN 65° F. PLUG ENDS OF CONDUIT RUN TO PREVENT AIR CIRCULATION. PROTECT CONCRETE FROM FREEZING FOR A MINIMUM OF 48 HOURS.

WHEREVER POSSIBLE, ALL CONCRETE MATERIALS AND ALL REINFORCEMENT, FORMS, FILLERS AND GROUND WITH WHICH CONCRETE IS TO COME IN CONTACT SHOULD BE FREE FROM FROST.

CONDUIT INSTALLATION

THE STANDARD ARRANGEMENT AND SEPARATION OF DUCTS AND THE THICKNESS OF CONCRETE SHEATHING SHALL BE AS SHOWN ON COMED STANDARD C4090. IF SPECIAL ARRANGEMENTS ARE REQUIRED, THE SECTIONAL OUTUNE OF DUCTS SHALL BE SHOWN ON THE INSTALLATION DRAWINGS. TRANSPOSITION OF DUCTS FOR VARIOUS STANDARD FORMATIONS SHALL BE MADE PER COMED STANDARDS C4130-36, BUT SHALL BE DONE ONLY WHEN SPECIFIED ON THE DRAWINGS OR SPECIALLY AUTHORIZED BY THE ENGINEER AFTER UNFORESEEN OBSTRUCTIONS ARE UNCOVERED.

THE FIRST LAYER OF CONDUIT SHALL BE LAID ON PLASTIC BASE SPACERS, (4 INCH SI 402327(MAINTENANCE ONLY). 5 IN SI 402328) HORIZONTALLY LOCKED, WHICH WILL PROVIDE A 3-INCH LAYER OF CONCRETE BELOW THE CONDUIT. THEY SHALL BE PLACED AT INTERVALS OF APPROXIMATELY 5 FEET. SUCCEEDING LAYERS ARE PLACED ON PLASTIC INTERMEDIATE SPACERS (4 INCH SI 402325 (MAINTENANCE ONLY), 5 INCH SI 402326) VERTICALLY LOCKED TO PREVIOUSLY PLACED SPACERS. THE CONDUIT COUPLINGS SHALL BE STAGGERED SO THAT NO COUPLING IS IN-LINE WITH THE COUPLING ON AN ADJACENT CONDUIT. WHEN THE REQUIRED LAYERS OF CONDUIT ARE BUILT-UP, THE ENTIRE ASSEMBLY SHALL BE BRACED TO PREVENT LATERAL AND VERTICAL MOVEMENT. WHEN THE INSTALLATION OF SPLIT DUCT IS SPECIFIED, PLACE SPACERS AT THREE FOOT INTERVALS.

THE CONCRETE SHALL BE THOROUGHLY SPADED AND PUDDLED IN AND AROUND THE CONDUIT PACKAGE. BRACING SHALL BE REMOVED WHEN CONCRETE HAS STARTED TO SET AND THERE IS NO FURTHER DANGER THAT DUCTS WILL FLOAT OR MOVE OUT OF ALIGNMENT. HOLES LEFT BY BRACING SHOULD THEN BE FILLED WITH GROUT.

IN FORMATIONS GREATER THAN 4 DUCTS HIGH, THE PREFERRED PRACTICE IS TO INSTALL THE FORMATION IN TWO LAYERS WITH THE CONCRETE BEING POURED IN TWO STEPS. THIS WILL PREVENT THE SPACERS FROM SPREADING OUT UNEVENLY AND CREATING UNEVEN VARIANCES IN CLEARANCES BETWEEN CONDUITS. THIS PROCEDURE WILL ALSO ENSURE THAT THERE IS A CONCRETE ENVELOPE AROUND EVERY DUCT AND DECREASE VERTICAL DROP TO THE LOWEST POSSIBLE DISTANCE WHEN POURING THE CONCRETE.

UNFINISHED CONSTRUCTION

IF THE CONDUIT RUN MUST BE TEMPORARILY LEFT UNFINISHED DURING CONSTRUCTION, CONDUIT SHALL BE CLOSED WITH PLASTIC CONDUIT PLUGS. IF THE CONDUIT RUN IS TO BE DEAD-ENDED. FOR COMPLETION AT SOME FUTURE TIME. THE END OF EACH CONDUIT SHALL BE PLUGGED AND STAGGERED APPROXIMATELY 3 INCHES FROM THE ADJACENT CONDUIT. THE END OF THE CONCRETE SHEATHING SHALL BE STEPPED BACK APPROXIMATELY 6 INCHES FOR EACH HORIZONTAL ROW OF CONDUIT. THE ENDS OF THE INSTALLED CONDUIT SHALL EXTEND BEYOND THE SHEATHING TO PERMIT CONNECTION TO FUTURE CONDUIT.

IN INSTANCES WHERE THE CONDUIT ENDS MAY NOT BE EASILY LOCATED, INSTALL AN ELECTRONIC MARKER (SI 649207) TO ASSIST IN LOCATION. AFTER CONDUIT IS INSTALLED, BACKFILL THE HOLE COVERING THE CONDUIT ENDS APPROXIMATELY 6 TO 12 INCHES AND INSERT MARKER IN HOLE ABOVE THE CONDUIT END. LAY MARKER ON FLAT GROUND AND CONTINUE BACKFILLING, INSURING THAT THE MARKER STAYS IN A HORIZONTAL POSITION SO THAT IT MAY BE LOCATED BY THE LOCATOR TOOL.

TRANSPOSING AROUND OBSTRUCTIONS

WHEN SMALL OBSTRUCTIONS ARE ENCOUNTERED, AND IT IS NOT ECONOMICAL OR DESIRABLE TO INSTALL THE CONDUIT RUN BELOW THE OBSTRUCTION, THE CONDUIT PACKAGE MAY BE TRANSPOSED. IN SUCH AN OPERATION, A 1-INCH SPACE SHALL BE LEFT ABOVE AND BELOW, BETWEEN THE CONCRETE SHEATH AND THE OBSTRUCTION. A 6 INCH GAP SHALL BE LEFT AROUND UTILITIES THAT ARE OBSTRUCTIONS. EACH PORTION OF THE TRANSPOSED CONDUIT SECTION SHALL BE INSTALLED AS A DOUBLE REVERSE CURVE USING A MINIMUM RADIUS OF 300 FEET.

THE SPACE BETWEEN THE TWO PORTIONS OF THE TRANSPOSED SECTION SHALL BE COMPLETELY FILLED WITH CONCRETE TO WITHIN 3 INCHES OF EACH SIDE OF THE OBSTRUCTION. THIS SPACE SHALL BE FILLED WITH #2 TORPEDO SAND (EM48D2).

CONDUIT BELLS

ALL CONDUIT SHALL TERMINATE AT A POURED MANHOLE IN PLASTIC CONDUIT ENTRANCE BELLS AS SHOWN ON STANDARD C4231. ALL CONDUIT SHALL TERMINATE AT A NETWORK CENTER OR VAULT PER C4250. IF CONDUIT PLUGS ARE USED. THEY SHOULD BE REMOVED AFTER CONSTRUCTION IS COMPLETED UNLESS OTHERWISE SPECIFIED.

BACKFILLING

AFTER THE CONCRETE SHEATHING HAS ATTAINED ITS INITIAL SET. THE TRENCH SHALL BE BACKFILLED IN ACCORDANCE WITH COMED STANDARD C235. APPROVED SAND AND PEA GRAVEL MIXTURE PLACED IN 12" LIFTS AND COMPACTED TO 95% MODIFIED PROCTOR AT OPTIMUM MOISTURE CONTENT. LAKE SAND SHALL NEVER BE USED FOR BACKFILL IN CONDUIT TRENCHES BECAUSE OF ITS POOR HEAT-CONDUCTING PROPERTIES.

WHEN LAKE SAND. PEAT, CINDERS, SLAG. OR OTHER MATERIAL WITH POOR HEAT CONDUCTING PROPERTIES ARE ENCOUNTERED IN THE CONDUIT EXCAVATION. THERMAL BACKFILL SHALL BE ADDED AROUND AND ABOVE THE CONDUIT, AS SPECIFIED ON THE INSTALLATION PLANS OR BY THE OWNER'S ENGINEER. THIS THERMAL BACKFILL WILL BE PER COMED EM48008 OR BANK RUN GRAVEL FROM A LOCATION APPROVED BY A TEMPERATURE CONTROL ENGINEER.

PAVING, CURBS, SIDEWALKS

REPLACEMENT OF PAVING, CURBS, AND SIDEWALKS SHALL BE DONE IN ACCORDANCE WITH THE STATE REQUIREMENTS.

CONDUIT PREPARATION

AFTER THE CONCRETE SHEATHING HAS ATTAINED ITS INITIAL SET, EACH DUCT SHALL BE RODDED AND MANDREL. FURNISHED BY THE OWNER SHALL BE PULLED THROUGH THE DUCT. WHEN A PREVIOUSLY DEAD-ENDED CONDUIT RUN IS EXTENDED. THE ENTIRE RUN SHALL BE RODDED AND MANDRELED. CONDUIT RUNS CONTAINING OR TERMINATING IN SMALL RADIUS BENDS THAT WILL NOT PERMIT THE PASSAGE OF A STANDARD SIZE MANDREL SHALL BE MANDRELED THROUGH THEIR STRAIGHT PORTION PRIOR TO THE CONSTRUCTION OR INSTALLATION OF THE BENDS. THE MANDRELING OF SMALL RADIUS BENDS SHALL BE DONE WITH A FLEXIBLE MANDREL NO SMALLER IN DIAMETER THAN 1/2 INCH LESS THAN THE NOMINAL DIAMETER OF THE BEND.

WHEN REQUESTED, THE CONTRACTOR SHALL, AS A PART OF THE MANDRELING OPERATION, PULL IN AND LEAVE IN CERTAIN DESIGNATED DUCTS A #8 GALVANIZED STEEL PULL WIRE (EM31110) OR A 1/4 INCH POLYETHYLENE CORD (SI714113), THAT WILL BE FURNISHED BY THE OWNER.

LATERALS

CONDUIT LATERALS THAT ARE TO BE CONCRETE ENCASED SHALL BE INSTALLED IN THE SAME MANNER AS MAIN CONDUIT RUNS. LATERALS THAT TERMINATE AT BUILDING WALLS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD C4250. THOSE THAT TERMINATE AT A POLE SHALL BE CONSTRUCTED PER C4270 OR C4273. THOSE THAT TERMINATE AT AN EQUIPMENT FOUNDATION SHALL BE CONSTRUCTED PER THE SPECIFIC EQUIPMENT FOUNDATION STANDARD.

DENSE CONDUIT SHEATHING FOR SPECIAL CONDITIONS

WHEN SPECIFIED ON THE INSTALLATION DRAWINGS, CONDUIT RUNS TO BE INSTALLED IN KNOWN CORROSIVE LOCATIONS. SUCH AS IN CINDER FILL ADJACENT TO COAL STORAGE PILES, IN GAS PURIFIER SLAG, ETC. SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING INSTRUCTIONS. ALL OTHER PROCEDURES GIVEN IN COMED STANDARD C4171 SHALL BE FOLLOWED.

THE OUTER SHEATHING ALL AROUND SHALL BE 6 INCHES THICK.

CONCRETE SHALL CONSIST OF THE FOLLOWING MIX:

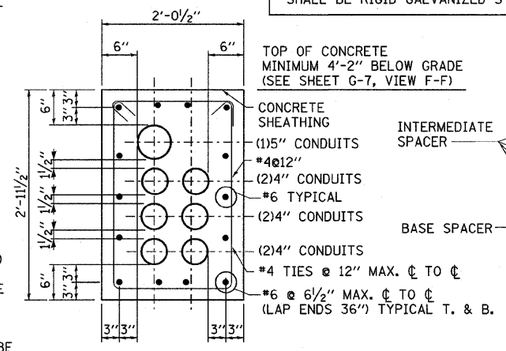
1 PART TYPE 1 PORTLAND CEMENT EM48000
2 PARTS #2 TORPEDO SAND EM48002
2 PARTS PEA GRAVEL (NOT CRUSHED STONE)

1/2 BAG OF FLY ASH SHALL BE ADDED TO THE MIX FOR EACH BAG OF PORTLAND CEMENT USED. FOR AN ALTERNATIVE TO PORTLAND CEMENT AND FLY ASH. LUMNITE CEMENT SHALL BE SPECIFIED. INCLUDE AIR ENTRAINMENT AGENT TO ENTRAIN 7 1/2 PERCENT OF AIR IN CONCRETE.

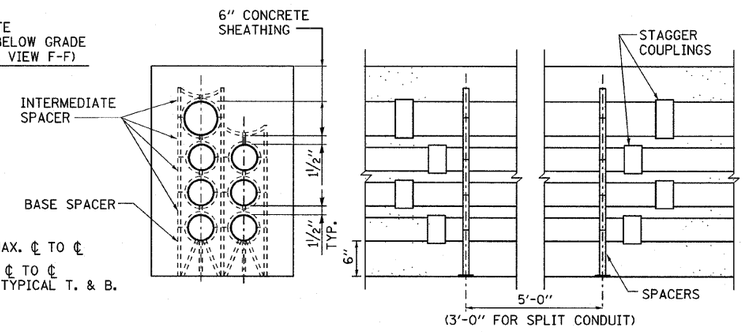
INCLUDING FREE SURFACE MOISTURE IN THE AGGREGATES, NOT MORE THAN 6 GALLONS OF WATER PER BAG OF CEMENT SHALL BE USED.

MINIMUM SLUMP SHALL BE 2 INCHES AND MAXIMUM SLUMP 4 INCHES.

NOTE:
ALL EMBEDDED CONDUIT SHALL BE PVC EXCEPT FOR THE FIRST SECTION OF COUDUIT BEGINNING AT THE INNER FACE OF THE EXISTING TRANSFORMER VAULT WALL, WHICH SHALL BE RIGID GALVANIZED STEEL (SEE VIEW F-F, SHEET NO. G-7)



LOOKING NORTH
(TYPICAL)



ELEVATIONS OF MONOLITHIC METHOD

CONCRETE ENCASED ELECTRICAL CONDUIT DETAILS

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No. 184-00533

ILLINOIS DEPARTMENT OF TRANSPORTATION

SITE DETAILS

SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010

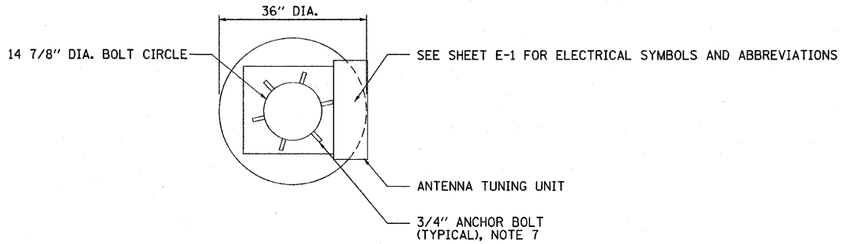
DRAWN BY: T.K.
CHECKED BY: K.F.

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-sht-G-DET.dgn
PLOT SCALE = 1.0
USER NAME = #USER#

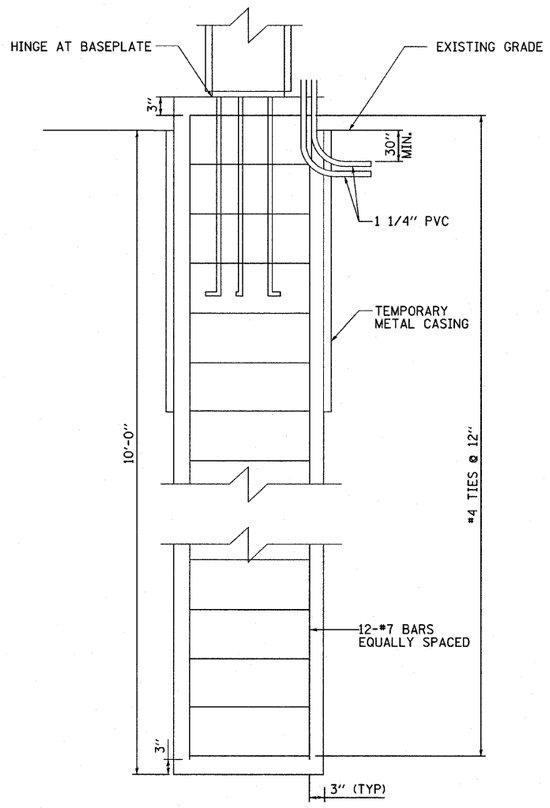
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	10
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

0-91-411-99



PLAN VIEW



PLAN VIEW

HAR ANTENNA FOUNDATION (HAR-03)

NOTES:

1. SEE SHEET E-1 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
2. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
3. THE FOUNDATION SHALL BE A MONOLITHIC POUR. NO CONSTRUCTION JOINTS WILL BE ALLOWED.
4. ALL REINFORCEMENT AND DETAILING SHALL CONFORM TO ACI 318. "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
5. REINFORCEMENT BARS SHALL BE DEFORMED BILLET STEEL BARS CONFORMING TO ASTM & 615 GRADE 60 WITH FY =60,000 PSI.
6. 3" CONCRETE COVER SHALL BE PROVIDED.
7. A TEMPORARY CASING SHALL BE INSTALLED TO A DEPTH BELOW THE EXISTING GROUND LEVEL TO PREVENT SEEPAGE INTO THE SHAFT AND TO A DEPTH NECESSARY TO PREVENT COLLAPSE OF THE SHAFT SIDEWALLS. SEE SOIL BORING LOGS FOR GROUND WATER LEVELS AND SOIL STABILITY INFORMATION AT EACH LOCATION.
8. ANCHOR BOLTS AND ANTENNA TOWER SHALL BE AS PER ANTENNA MANUFACTURER. CONTRACTOR MUST ENSURE THAT THE ANCHOR BOLTS AND ANTENNA ARE ORIENTED SUCH THAT THE ANTENNA TOWER CAN ROTATE 90 DEGREES DURING INSTALLATION WITHOUT AFFECTING TRAFFIC MOVEMENTS.
9. COORDINATE LOCATION AND SERVICE, AND CONSTRUCT CONDUITS FROM EXISTING PUMP STATION 26 TO THE PROPOSED CONCRETE FOUNDATION FOR RELOCATED HAR ANTENNA. THIS WORK SHALL BE PAID FOR AS "TRENCH AND BACKFILL FOR ELECTRICAL WORK".

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-006533

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

HAR ANTENNA FOUNDATION

SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010

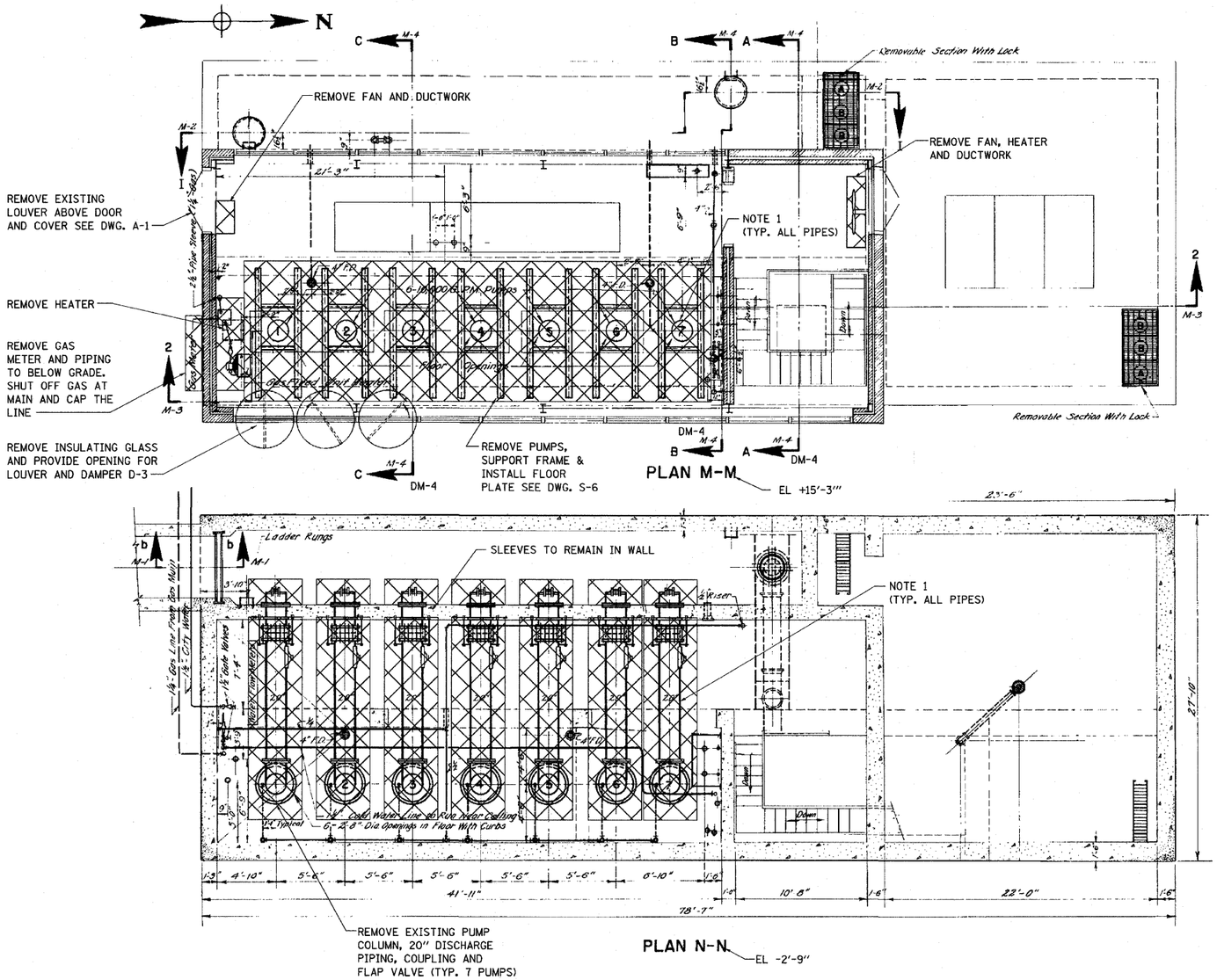
DRAWN BY: T.K.
CHECKED BY: K.F.

PLOT DATE = 3/22/2010
FILE NAME = 7060828-ant-G-10.dgn
PLOT SCALE = 1.1
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	11
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



GENERAL DEMOLITION NOTES:

1. COORDINATE DEMOLITION WITH THE PROPOSED CONSTRUCTION, MAINTENANCE OF THE FACILITY, AND APPROVED EQUIPMENT SHOP DRAWINGS. ALL OPENINGS ARE FOR ESTIMATE PURPOSE & SHALL BE COORDINATED WITH REVIEWED SHOP DRAWINGS.
2. THE DEMOLITION OF THE STRUCTURAL SLAB AND BEAMS AT EL. -2'-9" SHALL BE SHORED PRIOR TO DEMOLITION. CONTRACTOR SHALL COORDINATE STRUCTURAL DEMOLITION WITH EQUIPMENT DEMOLITION TO MAINTAIN PUMP STATION IN OPERATION.
3. DEMOLITION SHALL INCLUDE ALL ITEMS AND APPURTENANCES TO BE REMOVED AS REQUIRED TO COMPLETE THE WORK, WHETHER SPECIFICALLY IDENTIFIED OR NOT, SUCH THAT THE FACILITY IS COMPLETE AND OPERATIONAL.
4. THE REMOVAL OF ELECTRICAL/MECHANICAL ITEMS INCLUDES THE REMOVAL OF ALL ASSOCIATED SUPPORTS, WIRING, BOXES AND CONDUIT.
5. USE CHIPPING MATERIAL AND ROCK SPLITTERS TO AVOID DAMAGING EXISTING REINFORCEMENT DURING CONCRETE DEMOLITION.
6. CUT OR BEND EXISTING REINFORCEMENT TO CLEAR NEW OPENINGS, PIPE SLEEVES, WALL PIPES AND DRAINS.
7. LAP EXISTING REINFORCEMENT WITH NEW REINFORCEMENT.
8. PATCH, REPAIR OR RESTORE ALL AREAS AFFECTED BY DEMOLITION AND EQUIPMENT REMOVAL TO MATCH ADJACENT SURFACES. PROVIDE UNIFORM APPEARANCE AND FILL UNNECESSARY OPENINGS.
9. MAIN PUMPS, MOTORS, COLUMNS AND SHAFTS SHALL BE SALVAGED AND DELIVERED TO A LOCATION WITHIN DISTRICT 1 AS PER ENGINEER.
10. FOR ADDITIONAL (E) SLABS/WALLS REMOVAL DUE TO NEW OPENING REQUIREMENT, (E) LADDERS/RAILINGS REPLACEMENT SEE DRAWINGS S-5, S-6, S-11 AND S-12.

NOTES:

1. LEAD BASED PAINTS WERE USED ON THE PIPES. DEMOLITION CONTRACTOR SHALL HAVE THE LEAD PAINT ABATED AND PROPERLY DISPOSED PER THE REQUIREMENTS OF DIVISION 9, SECTION 9B OF THE SPECIFICATIONS AND REQUIREMENTS OF ALL RULES GOVERNING REMOVAL OF LEAD BASED PAINTS FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY (USEPA) CONTAINED IN THE FEDERAL REGISTER 10 CFR PART 745.

LEGEND

REMOVAL WORK

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-arch-DM-01.dgn
PLOT SCALE = 1.0
USER NAME = #USER#

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No: 184-006533

ILLINOIS DEPARTMENT OF TRANSPORTATION

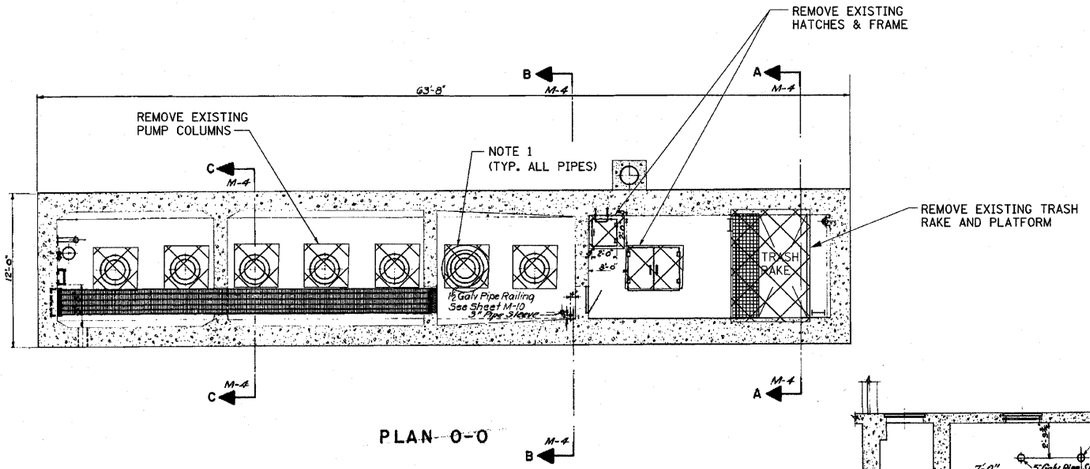
MECHANICAL DEMOLITION – SHEET 1

SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010
DRAWN BY: R.D
CHECKED BY: A.M.

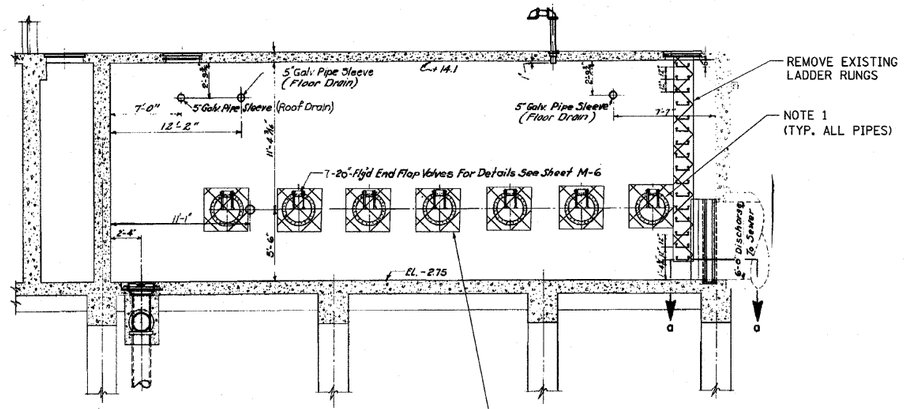
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	12
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

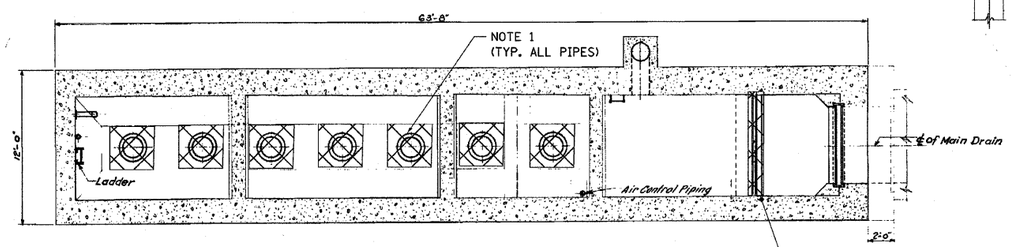
D-91-411-99



PLAN O-O



SECTION I-I



PLAN P-P

COORDINATE THE REMOVAL OF EXISTING BAR SCREEN AND RAKE WITH INSTALLATION OF NEW BAR SCREEN AND RAKE TO MINIMIZE THE AMOUNT OF TIME THE STATION IS OPERATING WITHOUT TRASH REMOVAL.

NOTES:

1. LEAD BASED PAINTS WERE USED ON THE PIPES. DEMOLITION CONTRACTOR SHALL HAVE THE LEAD PAINT ABATED AND PROPERLY DISPOSED PER THE REQUIREMENTS OF DIVISION 9, SECTION 9B OF THE SPECIFICATIONS AND REQUIREMENTS OF ALL RULES GOVERNING REMOVAL OF LEAD BASED PAINTS FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY (USEPA) CONTAINED IN THE FEDERAL REGISTER 10 CFR PART 745.

LEGEND

REMOVAL WORK

FOR GENERAL DEMOLITION NOTES SEE DWG DM-1.

PLOT DATE = 3/22/2010
FILE NAME = c:\608\25-mvc-DM-02.dgn
PLOT SCALE = 1.0
USER NAME = #USER#

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

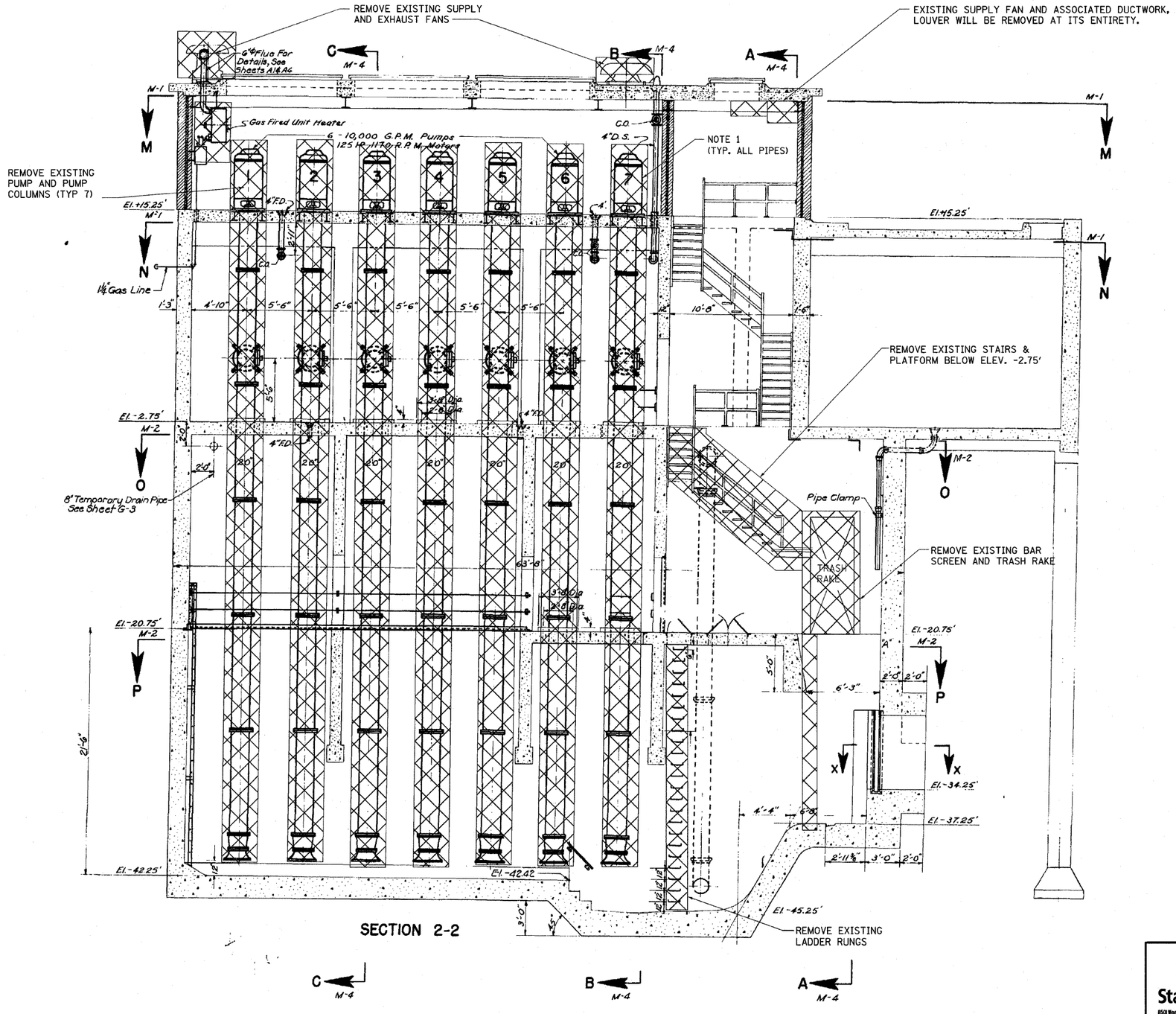
MECHANICAL DEMOLITION - SHEET 2

SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010
DRAWN BY: R.D
CHECKED BY: A.M.

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	13
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



NOTES:

1. LEAD BASED PAINTS WERE USED ON THE PIPES. DEMOLITION CONTRACTOR SHALL HAVE THE LEAD PAINT ABATED AND PROPERLY DISPOSED PER THE REQUIREMENTS OF DIVISION 9, SECTION 9B OF THE SPECIFICATIONS AND REQUIREMENTS OF ALL RULES GOVERNING REMOVAL OF LEAD BASED PAINTS FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY (USEPA) CONTAINED IN THE FEDERAL REGISTER 10 CFR PART 745.

LEGEND

REMOVAL WORK

FOR GENERAL DEMOLITION NOTES SEE DWG DM-1.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

MECHANICAL DEMOLITION – SHEET 3

SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010

DRAWN BY: R.D
CHECKED BY: A.M.

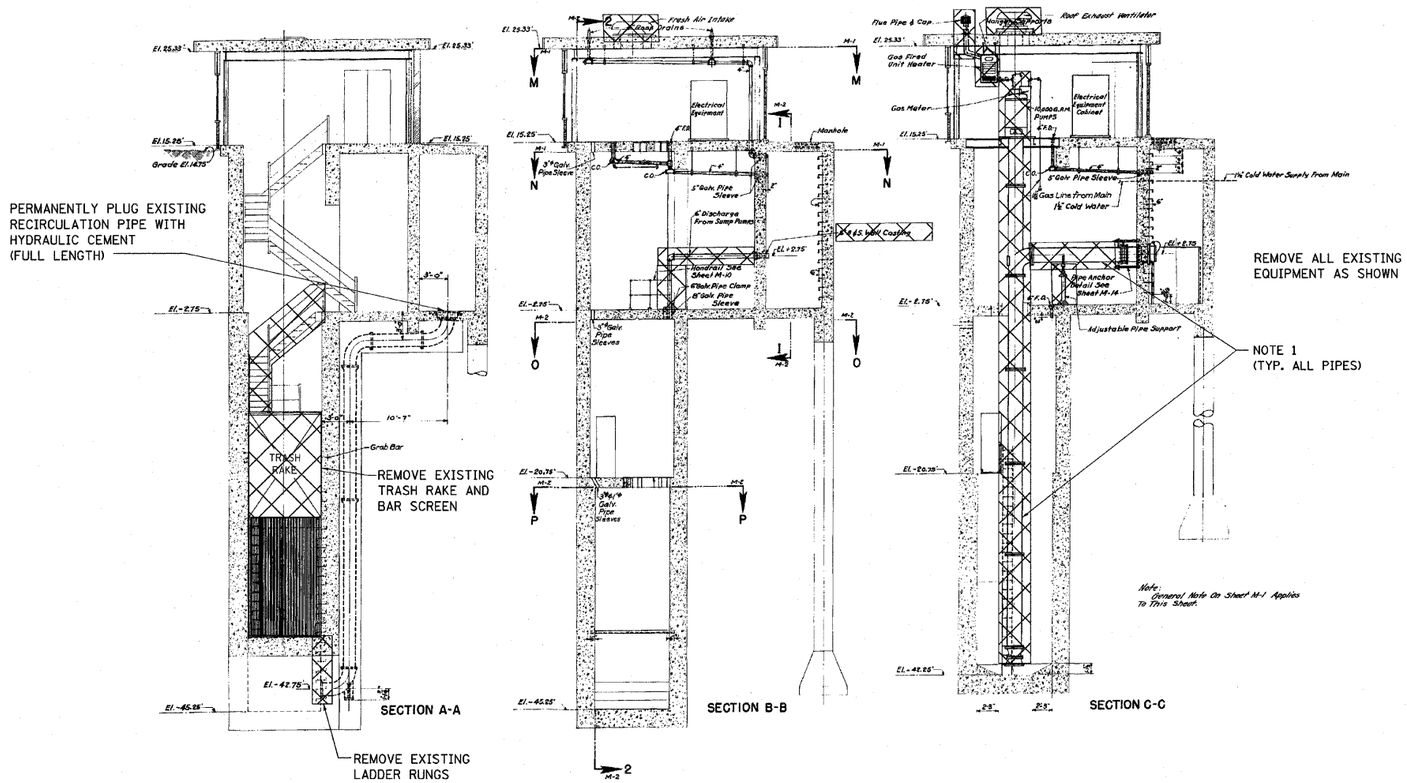
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

PLOT DATE = 3/22/2010
FILE NAME = S:\Projects\...\M-DM-03.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	14
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



NOTES:

1. LEAD BASED PAINTS WERE USED ON THE PIPES. DEMOLITION CONTRACTOR SHALL HAVE THE LEAD PAINT ABATED AND PROPERLY DISPOSED PER THE REQUIREMENTS OF DIVISION 9, SECTION 9B OF THE SPECIFICATIONS AND REQUIREMENTS OF ALL RULES GOVERNING REMOVAL OF LEAD BASED PAINTS FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY (USEPA) CONTAINED IN THE FEDERAL REGISTER 10 CFR PART 745.

LEGEND

REMOVAL WORK

FOR GENERAL DEMOLITION NOTES SEE DWG DM-1.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

MECHANICAL DEMOLITION – SHEET 4

SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010

DRAWN BY: R.D
CHECKED BY: A.M.

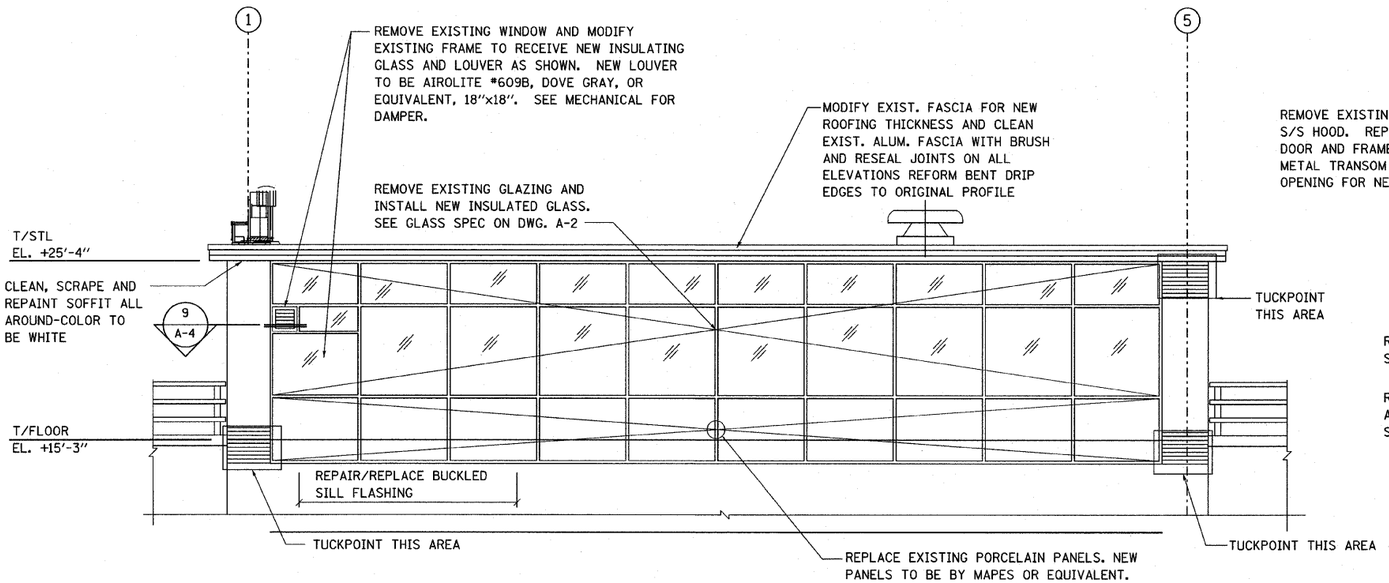
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-00533

PLOT DATE = 3/22/2010
FILE NAME = I:\60828\dm-dm-04.dgn
PLOT SCALE = 1.0000 '/ IN.
USER NAME = #USER#

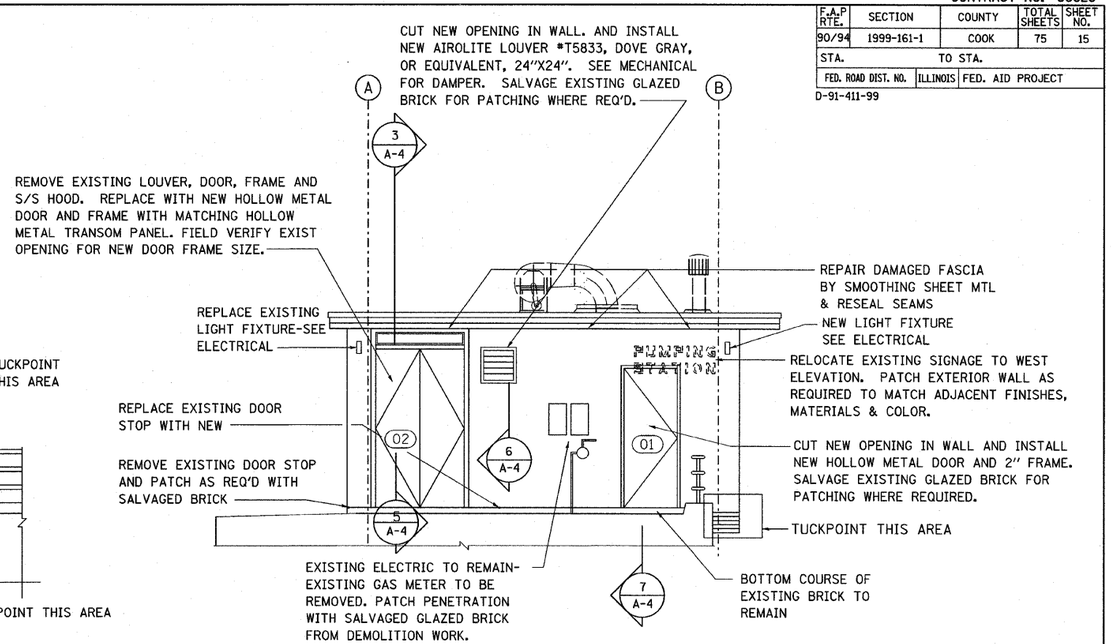
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	15
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

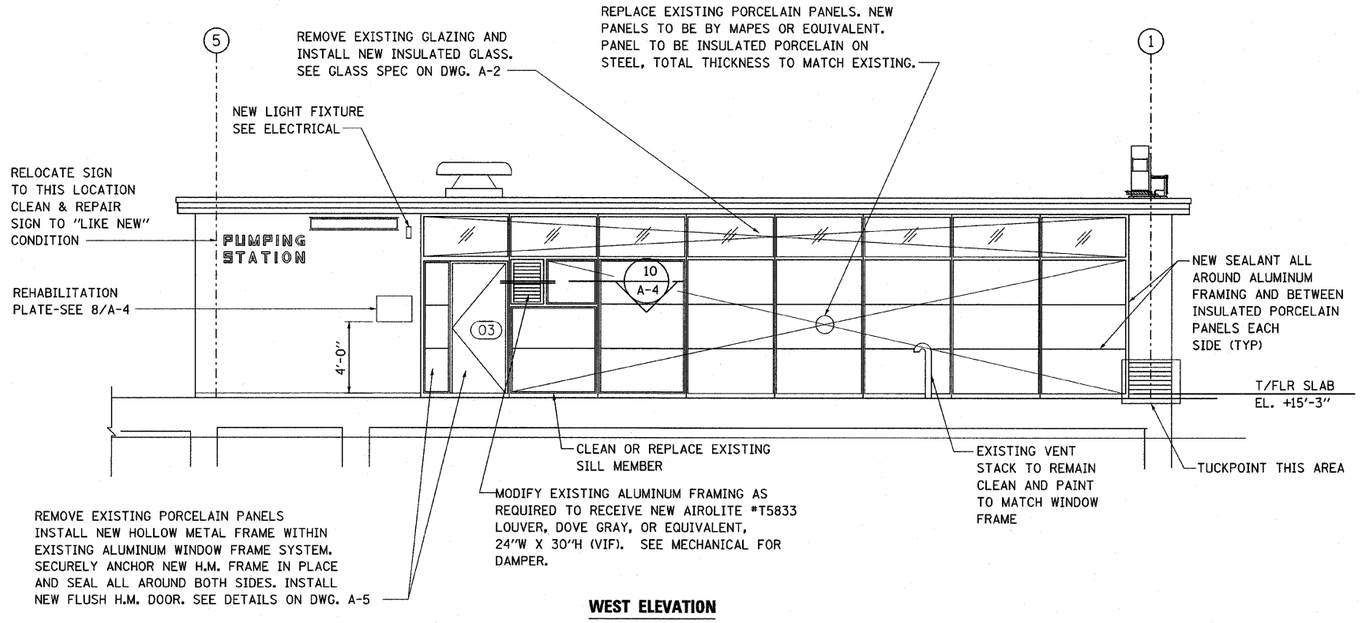
D-91-411-99



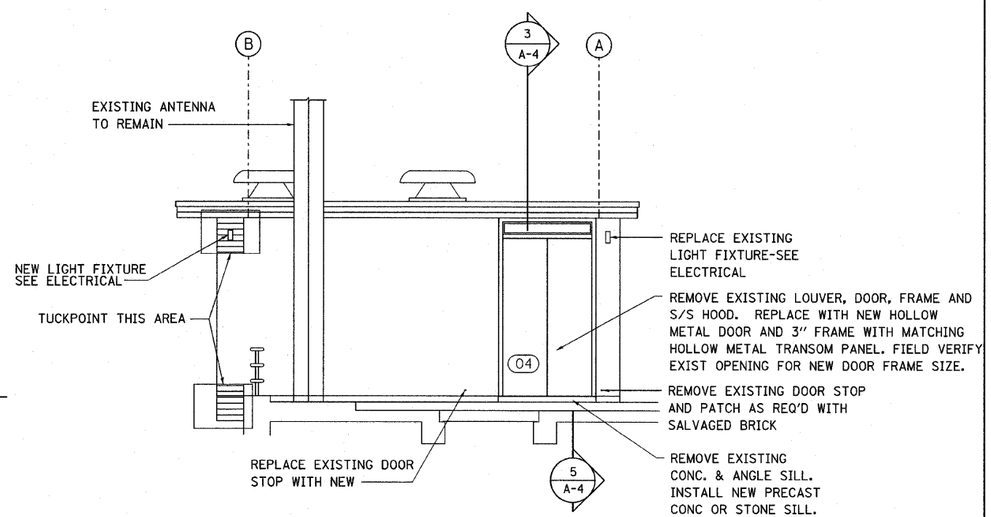
EAST ELEVATION



SOUTH ELEVATION



WEST ELEVATION



NORTH ELEVATION

4 3 2 1 0 4 8 — 1/4"= 1'-0"

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleyconsultants.com
Illinois Firm Registration No.: 184-006533

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL ELEVATIONS

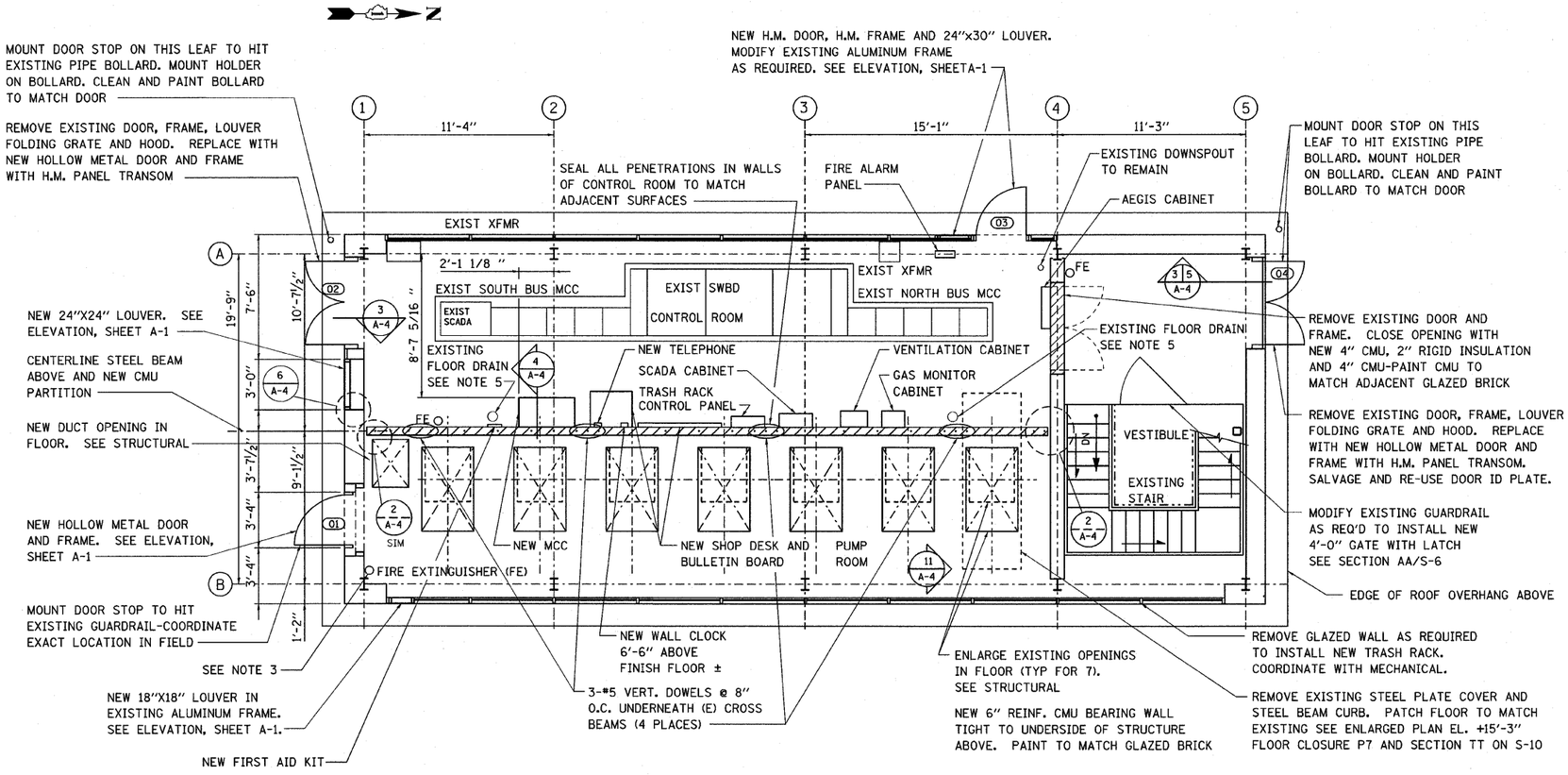
SCALE: VERT. 1/4"=1'-0" HORIZ.
DATE: 3/23/2010
DRAWN BY: A.T.
CHECKED BY: D.L.

PLOT DATE = 3/22/2010
FILE NAME = D:\608226-arch-A-01.dgn
PLOT SCALE = 1/4
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	16
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



FLOOR PLAN AT EL. =EL. +15.25'

GLASS SPEC

1. GLASS TYPE: CLEAR INSULATING 1" DOUBLE GLAZED UNITS WITH SUNGATE 100 LOW E COATING.
2. MANUFACTURE: GUARDIAN INDUSTRIES OR EQUAL.
3. PROVIDE ALL REQUIRED GLAZING MATERIALS AND SEALANTS AND ACCESSORIES FOR INSTALLATION WITHIN AN EXISTING ALUMINUM FRAME SYSTEM.
4. MODIFY EXISTING ALUMINUM FRAME SYSTEM AS REQUIRED TO ACCEPT NEW GLASS.
5. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS.

REINFORCED MASONRY

1. ALL MASONRY SHALL CONFORM TO ACI 530. "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES".
2. ALL LOAD BEARING CONCRETE MASONRY UNITS SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRESS f'm GREATER THAN OR EQUAL TO 2000 PSI BY THE PRISM STRENGTH TEST METHOD.
3. GROUT FOR VERTICALLY REINFORCED MASONRY WALLS AND BOND BEAMS SHALL CONSIST OF 1 PART PORTLAND CEMENT: 2-1/2 FINE AGGREGATE: 2 PARTS PEA GRAVEL AND f'c=3000 PSI @ 28 DAYS PER ASTM C476. GROUT SLUMP SHALL BE 9" TO 10".
4. ALL MASONRY WALLS HORIZONTAL JOINTS SHALL HAVE HORIZONTAL REINFORCING CONSISTING OF GALVANIZED STANDARD WEIGHT 9 GA. "DUR-O-WALL" OR EQUAL. JOINT REINFORCING SHALL BE PLACED EVERY SECOND COURSE.
5. ALL MASONRY WALLS HORIZONTAL JOINTS SHALL HAVE HORIZONTAL REINFORCING CONSISTING OF GALVANIZED STANDARD WEIGHT 9 GA. "DUR-O-WALL" OR EQUAL. JOINT REINFORCING SHALL BE PLACED EVERY SECOND COURSE.
6. SUPPLY VERTICAL REINFORCING IN MINIMUM LENGTH OF 4'-0" PLUS 48 BAR DIAMETER LAP AS REQUIRED.
7. WALL CONSTRUCTION LIFTS SHALL BE PER ACI 530.
8. ASTM C270 TYPE S MORTAR REQUIRED UNLESS NOTED OTHERWISE.
9. SEE ARCHITECTURAL PLANS FOR LOCATION AND DETAIL OF CONTROL JOINTS AND EXPANSION JOINTS. REINFORCED WALLS SHALL HAVE THE FIRST VERTICAL BAR AND DOWEL WITHIN 8" OF JOINT ON EACH SIDE OF JOINT.
10. GENERAL CONTRACTOR SHALL COORDINATE ALL REQUIRED OPENINGS IN MASONRY WALLS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.

ROOM FINISH SCHEDULE

ROOM	FLOOR		BASE	WALLS								CEILING		REMARKS
				NORTH		SOUTH		EAST		WEST				
	MAT'L	FIN		MAT'L	FIN	MAT'L	FIN	MAT'L	FIN	MAT'L	FIN	MAT'L	FIN	
CONTROL ROOM	CONC	PAINT	NONE	GL.BRK		GL.BRK		CMU	PAINT	PANEL				PAINT CMU INFILL TO MATCH GLAZED BRICK
PUMP ROOM	CONC	PAINT	NONE	GL.BRK		GL.BRK		PANEL		CMU	PAINT			
VESTIBULE	CONC	PAINT	NONE	GL.BRK		GL.BRK		PANEL		GL.BRK				PAINT CMU INFILL TO MATCH GLAZED BRICK

PAINT COLOR TO MATCH EXISTING GLAZED BRICK OR ADJACENT SURFACE
SUBMIT COLOR SAMPLES FOR ARCHITECT'S REVIEW

COLOR GUIDELINES:
EXISTING GLAZED BRICK SIMILAR TO PRATT & LAMBERT #2240-MINNOW
NEW PORCELAIN PANEL COLORS TO BE SUBMITTED TO CLIENT FOR APPROVAL
EXISTING STRUCTURAL STEEL, BOTTOM OF ROOF DECK, METAL DOORS AND FRAMES TO BE SIMILAR TO PRATT & LAMBERT #1301 BLUE FOX (MATCH TRANSOM PANELS OVER DOOR NOS. 02 AND 04)

NOTES:

1. CONTRACTOR TO PATCH ALL OLD UNUSED PENETRATIONS AND MOUNTING HOLES. PATCHES SHALL BE FLUSH WITH, AND COLOR SHALL MATCH, ADJACENT SURFACES.
2. ALL LEAD PAINT TO BE REMOVED. ALL PAINTED SURFACES, EXCEPT FOR CONCRETE FLOOR AND EXTERIOR OVERHANGS, CONTAIN LEAD. SEE SPECS. CONTRACTOR TO INSPECT THE PREMISES PRIOR TO SUBMITTING BID TO DETERMINE FULL EXTENT OF REQUIRED ABATEMENT.
3. PROVIDE ONE (1) PORTABLE FIRE EXTINGUISHER IN PUMP ROOM, CONTROL ROOM AND VESTIBULE. SEE SPECIFICATIONS.
4. WHEREVER PAINT COLOR IS NOTED TO MATCH EXISTING, CONTRACTOR TO SUBMIT COLOR SAMPLES FOR ARCHITECT'S REVIEW PRIOR TO PAINTING.
5. CONTRACTOR SHALL PERMANENTLY SEAL EXISTING FLOOR DRAIN. PROVIDE PLUMBERS PLUG BACKING AND FILL DRAINS W/ MINIMUM 4" EPOXY GROUT. GROUT TO BE SMOOTH AND LEVEL W/ EXISTING FLOOR.
6. ALL NEW AND EXISTING EXPOSED STEEL SURFACES ARE TO BE PAINTED. SEE ROOM FINISH SCHEDULE AND SPECIFICATION SECTION 9A.
7. ALL EXPOSED CONCRETE CEILING SURFACES ARE TO BE PAINTED TO MATCH ADJACENT SURFACES UNLESS OTHERWISE NOTED.

**DOOR SCHEDULE

(SEE SPECIFICATION SECTIONS 8B AND 8C)

DOOR NO.	3-0x7-4 (VIF)	3-0x7-10	PR. 2-6x8-10 (VIF)	INSULATED HOL. MTL GALV-PAINTED	PAINTED HOL MTL FRAME	HINGES	LOCKSET	DEADBOLT •••	FLUSH BOLT •	CLOSER	THRESHOLD	WEATHERSTRIP	DOOR STOP	LOCK GUARD
01		X		X	X	X	X	X		X	X	X	X	X
02			X	X	X	X	X	X	X	X	X	X	X	X
03	X			X	X	X	X			X	X	X		X
04			X	X	X	X	X	X	X	X	X	X	X	X

• WEST DOOR LEAF TO RECEIVE FLUSH BOLTS
•• ALL EXISTING DOOR OPENINGS SHALL BE FIELD VERIFIED FOR SIZE REQUIREMENTS
••• EXTERIOR PADLOCKABLE DEADBOLT - MATCH EXISTING

4 3 2 1 0 4 8 — 1/4"= 1'-0"

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL PLAN

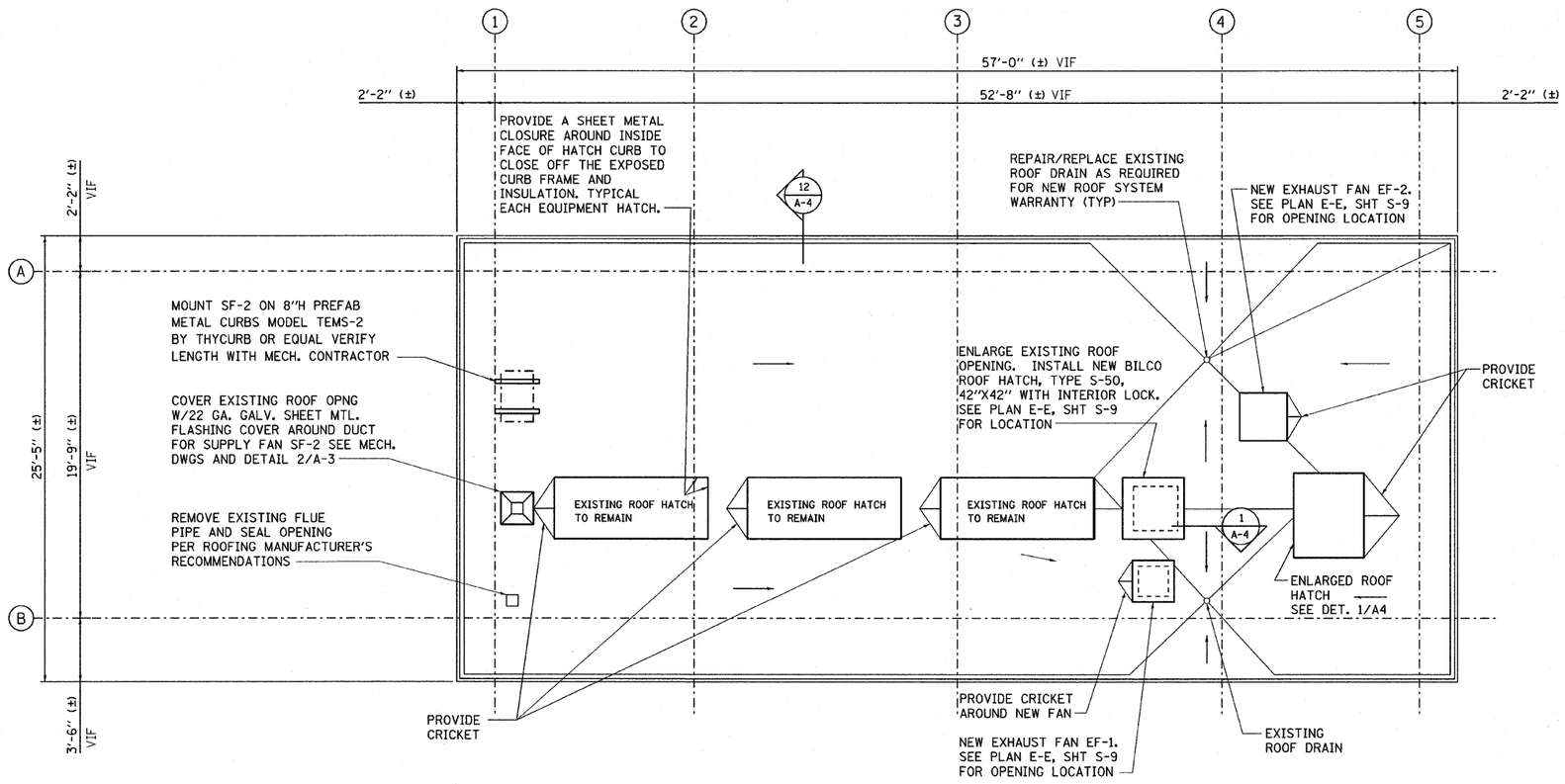
SCALE: VERT. 1/4"=1'-0" HORIZ.
DATE: 3/23/2010
DRAWN BY: A.T.
CHECKED BY: D.L.

PLOT DATE = 3/22/2010
FILE NAME = D:\60828\sht-A-02.dgn
PLOT SCALE = 1.4286
USER NAME = #USER#

CONTRACT NO. 60828

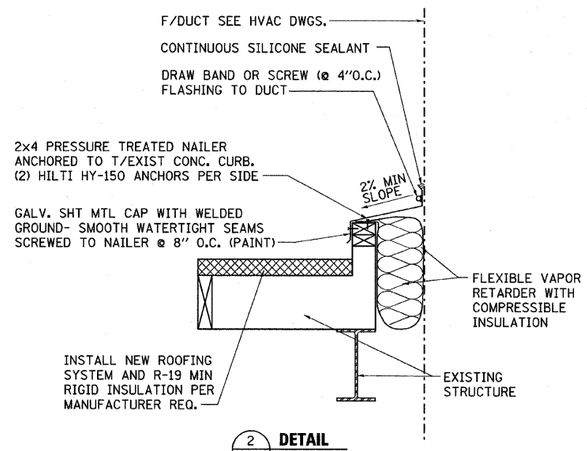
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	17
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



ROOF PLAN

SCALE: 1/4"= 1'-0"



2 A-3 **DETAIL**

NO SCALE

ROOFING CONTRACTOR NOTES:

1. DUE TO THE EXTENT OF NEW ROOF PENETRATIONS REPLACE EXISTING ROOFING WITH NEW SBS MODIFIED BITUMEN ROOFING. REMOVE EXISTING ROOFING SYSTEM DOWN TO EXISTING LT. WEIGHT CONCRETE. INSTALL PER MANUFACTURER REQ.
2. ROOFING SYSTEM MANUFACTURER PROVIDING FACTORY WARRANTY SHALL REVIEW PROPOSED INSTALLATION DETAILS & CERTIFY THAT THEY COMPLY WITH WARRANTY REQ.
3. NOTE: SLOPES SHOWN ARE FOR EXISTING ROOF SYSTEM. NEW SLOPE SHALL BE 1/8"/FT. MIN. TO THE 2 EXISTING ROOF DRAINS UTILIZING TAPERED RIGID INSULATION AND 4'-0" DIA SUMPS AT EACH DRAIN.
4. EXISTING PERIMETER ROOF CURB BLOCKING AND FLASHING SHALL BE MODIFIED OR REPLACED AS REQUIRED TO PROVIDE THE REQUIRED DRAINAGE SLOPES WITHOUT PROTRUDING ABOVE THE PERIMETER EDGE FLASHING. SEE DETAIL 12/A-5.

4 3 2 1 0 4 8 — 1/4"= 1'-0"

PLOT DATE = 3/22/2010
FILE NAME = D:\08825-arc-A-03.dgn
PLOT SCALE = 1.000
USER NAME = #USER#

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

ILLINOIS DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL ROOF PLAN

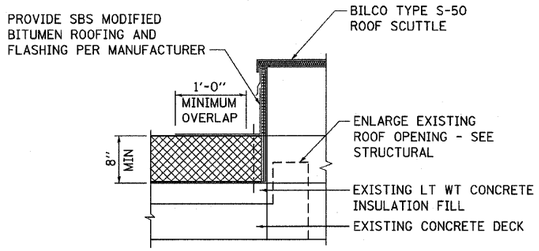
SCALE: VERT. AS NOTED
HORIZ.
DATE: 3/23/2010

DRAWN BY: A.T.
CHECKED BY: D.L.

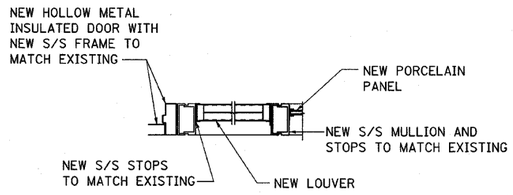
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	18
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

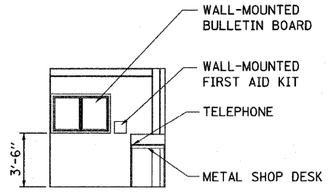
D-91-411-99



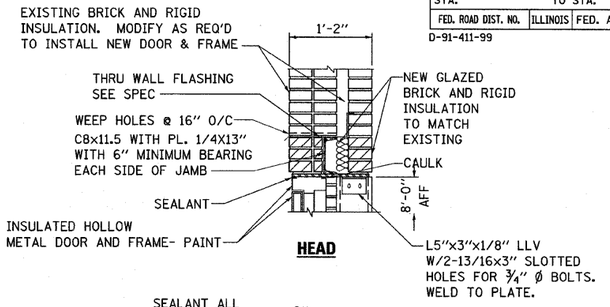
1 / A-4 DETAIL AT NEW ROOF HATCH
SCALE: 1" = 1'-0"



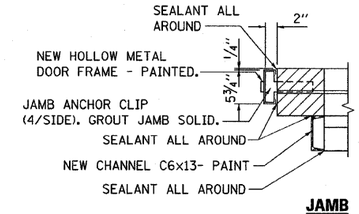
10 / A-4 LOUVER DETAIL
SCALE: 1" = 1'-0"
HEAD DETAIL SIMILAR



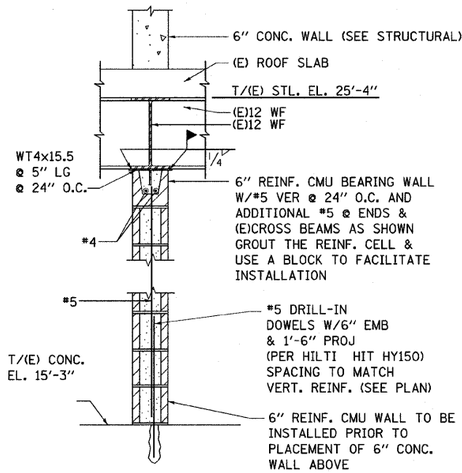
11 / A-4 INTERIOR ELEVATION
NO SCALE



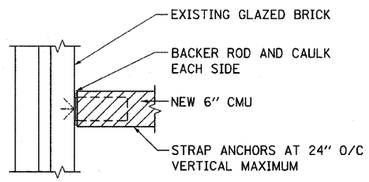
HEAD



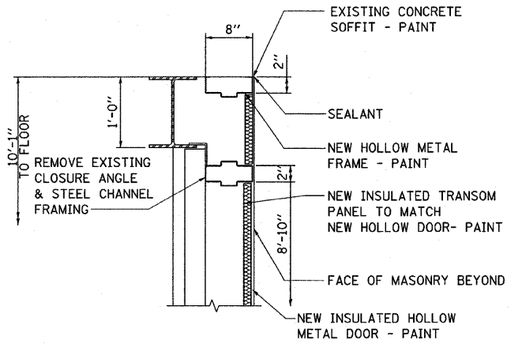
JAMB



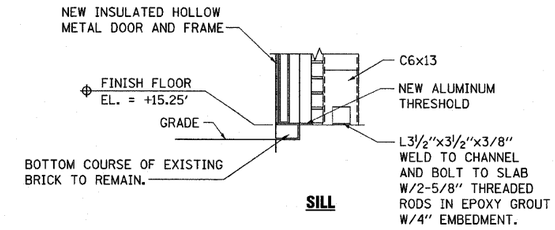
4 / A-4 DETAIL
SCALE: 1" = 1'-0"



2 / A-4 WALL INTERSECTION DETAIL
SCALE: 1" = 1'-0"

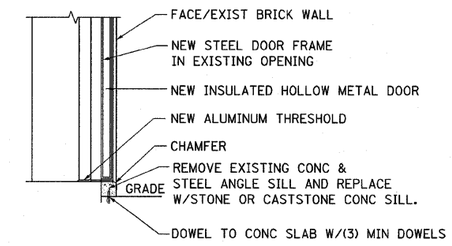


3 / A-4 TRANSOM DETAIL
SCALE: 1" = 1'-0"

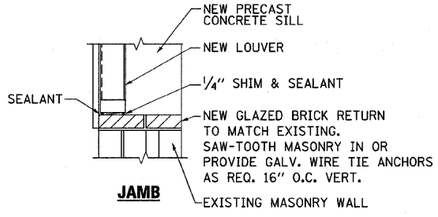


SILL

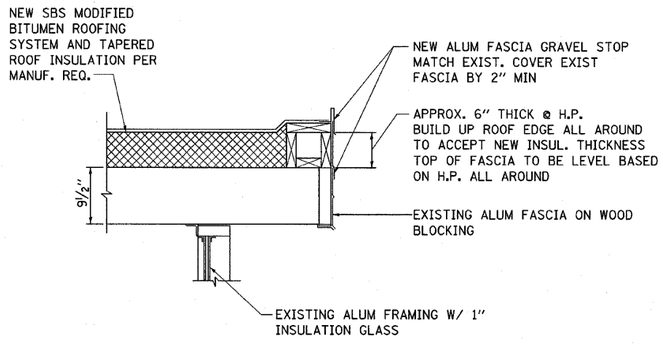
7 / A-4 DOOR DETAILS
SCALE: 1" = 1'-0"



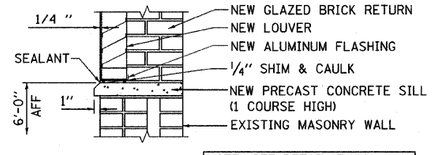
5 / A-4 SILL DETAIL
SCALE: 1" = 1'-0"



JAMB

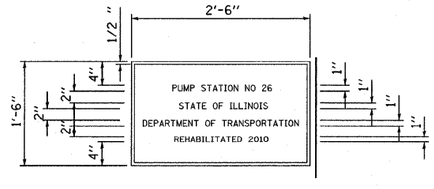


12 / A-4 ROOF EDGE DETAIL
SCALE: 1" = 1'-0"

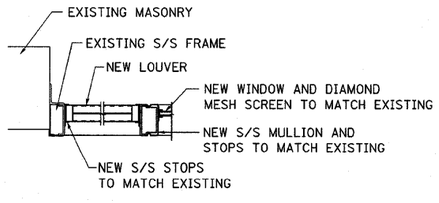


SILL

NOTE: SEE DETAIL 7/A4 FOR SIMILAR HEAD CONDITION



8 / A-4 IDENTIFICATION PLATE
SCALE: 1" = 1'-0"



9 / A-4 LOUVER DETAIL
SCALE: 1" = 1'-0"
HEAD DETAIL SIMILAR

6 / A-4 LOUVER DETAILS
SCALE: 1" = 1'-0"

0 .5 1 2 — 1"= 1'-0"

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-00533

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL SECTIONS & DETAILS

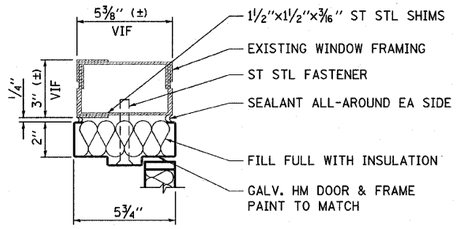
SCALE: VERT. AS NOTED HORIZ.
DATE: 3/23/2010
DRAWN BY: A.T.
CHECKED BY: D.L.

PLOT DATE = 3/22/2010
FILE NAME = D:\projects\...\A-4-04.dgn
PLOT SCALE = 1.0000 '/ Inch
USER NAME = #USER#

CONTRACT NO. 60828

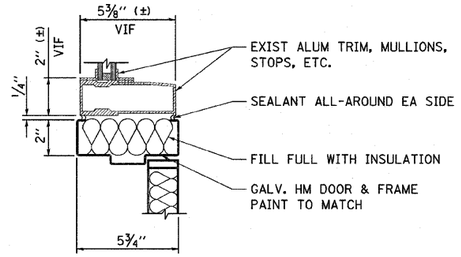
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	19
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99

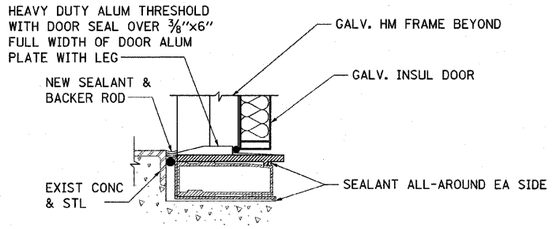


NOTE:
OPPOSITE JAMB SIMILAR WITH NEW ALUMINUM FRAMING TO MATCH & ALIGN WITH EXISTING MAPES PANEL FRAMING SYSTEM

1 A-5 **HM DOOR JAMB DETAIL WEST WALL**



2 A-5 **HM DOOR HEAD DETAIL WEST WALL**



3 A-5 **HM DOOR SILL DETAIL WEST WALL**

0 6" 1' — 3"= 1'-0"

PLOT DATE = 3/22/2010
FILE NAME = D:\08828-arch-A-015.dgn
PLOT SCALE = 1.0
USER NAME = #USER#

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No. 184-006533

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL DETAILS

SCALE: VERT. 3"=1'-0" HORIZ.
DATE: 3/23/2010

DRAWN BY: A.T.
CHECKED BY: D.L.

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	20
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99

STRUCTURAL DESIGN CRITERIA:

1. BUILDING CODE: INTERNATIONAL BUILDING CODE (IBC) 2006; PUBLISHED BY INTERNATIONAL CODE COUNCIL, INC.
2. AMERICAN NATIONAL STANDARDS INSTITUTE CODE, ASCE 7-05 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES; PUBLISHED BY AMERICAN NATIONAL STANDARDS INSTITUTE, INC.
3. STEEL DESIGN CODE: SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, ALLOWABLE STRESS DESIGN (ASD) 2005;PUBLISHED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
4. CONCRETE DESIGN CODE: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, ACI 318-05; PUBLISHED BY AMERICAN CONCRETE INSTITUTE.
5. STRUCTURAL STEEL: SEE SPECIFICATION.
6. CONCRETE COMPRESSIVE STRENGTH: 4000 PSI AT 28 DAYS.
7. MASONRY COMPRESSIVE STRENGTH (f'm): 1500 PSI.
8. REINFORCING STEEL: ASTM A615, GRADE 60 EPOXY COATED.
9. WELDED WIRE FABRIC: ASTM A185.

FIELD MEASUREMENT NOTES:

1. ALL DIMENSIONS OF EXISTING CONSTRUCTION ARE APPROXIMATE; CONTRACTOR SHALL MAKE ALL NECESSARY FIELD MEASUREMENTS OF EXISTING STRUCTURES, BREECHING AND EQUIPMENT
TO VERIFY DIMENSIONS SHOWN ON DRAWINGS AND TO PROVIDE DIMENSIONS NOT SHOWN, PRIOR TO FABRICATION. COSTS FOR MODIFICATIONS OF NEW CONSTRUCTION, DUE TO LACK OF CONFIRMATION OF DIMENSIONS BY FIELD MEASUREMENTS SHALL BE BORNE BY CONTRACTOR.
2. CONTRACTOR'S STRUCTURAL STEEL DETAILER SHALL MAKE NECESSARY FIELD MEASUREMENTS OF EXISTING STRUCTURAL STEEL CONNECTIONS TO ENSURE NEW CONNECTION DETAILS SHOWN ON SHOP DRAWINGS ARE COMPATIBLE WITH EXISTING CONNECTIONS AND ARE CONSTRUCTABLE AS DETAILED.

CONCRETE DEMOLITION NOTES:

1. REMOVE CONCRETE TO LIMITS SHOWN.
2. AT LIMITS OF CONCRETE TO BE REMOVED WHERE EXISTING CONCRETE IS TO REMAIN, PERFORM REMOVAL AS FOLLOWS:
   - A. WHERE LIMITS OF CONCRETE REMOVAL FORM A CORNER, CORE DRILL (3" DIA MINIMUM) CONCRETE AT CORNER PRIOR TO SAW CUTTING. OVER CUTTING BY SAW AT CORNERS IS NOT PERMITTED.
   - B. INITIATE REMOVAL BY SAW CUT. SAW CUTS MAY BE MADE THROUGH ENTIRE THICKNESS OF CONCRETE UNLESS EXISTING REINFORCING IS SHOWN TO REMAIN AND EXTEND INTO SUBSEQUENT NEW CONCRETE CONSTRUCTION.
   - C. WHERE SAW CUTTING THROUGH ENTIRE SECTION IS NOT POSSIBLE DUE TO SPACE LIMITATIONS FOR EQUIPMENT OR WHERE NOT PERMITTED DUE TO RETENTION OF EXISTING REINFORCING, REMOVE CONCRETE BY PRE-DRILLING SERIES OF HOLES ALONG LINE OF REMOVAL TO WEAKEN CONCRETE AND THEN REMOVE CONCRETE BY USE OF HAND HELD JACK HAMMERS.
   - D. EXISTING CONCRETE TO REMAIN SHALL NOT BE DAMAGED BY CONCRETE REMOVAL PROCESS. INSPECT CONCRETE TO REMAIN AT DEMOLITION LIMITS AND REPORT TO ENGINEER ANY EVIDENCE OF DAMAGED CONDITIONS.
   - E. EXISTING REINFORCING BARS THAT ARE TO BE RETAINED SHALL NOT BE DAMAGED BY DEMOLITION PROCESS. DAMAGED BARS OR BARS BENT EXCESSIVELY BY DEMOLITION PROCESS SHALL BE CUT AND MECHANICALLY SPLICED AT CONTRACTOR'S EXPENSE.

CONCRETE NOTES:

1. EXPOSED CONCRETE CORNER CHAMFER: 3/4" UNLESS SHOWN OTHERWISE.
2. PROVIDE PIPE SLEEVE FOR ALL PIPES AND CONDUITS THAT PASS THROUGH MASONRY OR CONCRETE. MAKE SLEEVES IN WALLS FLUSH AND EXTEND SLEEVES IN FLOORS 4" ABOVE TOP OF FLOOR UNLESS SHOWN OTHERWISE.
3. PROVIDE SETTING TEMPLATES TO POSITION ANCHOR BOLTS PRIOR TO PLACING CONCRETE. ACCURATELY POSITION BOLTS TO ASSURE CORRECT VERTICAL AND HORIZONTAL LOCATION TO MATCH STEEL OR EQUIPMENT BOLT PATTERN.
4. ALL METAL FABRICATIONS EMBEDDED IN CONCRETE, OTHER THAN REINFORCING AND ANCHOR BOLTS, SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 AND ASTM A386 AS APPLICABLE.
5. CONCRETE SHALL NOT BE LOADED UNTIL IT HAS ATTAINED SUFFICIENT STRENGTH TO SAFELY
WITHSTAND LOADING AND UNTIL REQUIRED SHORING AND BRACING HAVE BEEN INSTALLED.
6. DO NOT PLACE LOADS WITHIN 6 FEET OF CONSTRUCTION JOINT IN SLABS FOR AT LEAST 7 DAYS AFTER SLAB IS PLACED.
7. DO NOT PERFORM ANY OPERATIONS NEAR GROUND FLOOR SLAB PLACEMENT WHICH COULD CAUSE VIBRATION OR SETTLEMENT OF THE SUPPORTING SOIL STRATA FOR AT LEAST 7 DAYS AFTER SLAB IS PLACED.
8. CONSTRUCTION CRANE OR OTHER HEAVY ERECTION EQUIPMENT WILL NOT BE PERMITTED ON SLABS.

CONCRETE NOTES (continued):

9. FOUNDATION WALLS SHALL BE ADEQUATELY BRACED DURING CONSTRUCTION.
10. CONTRACTOR IS RESPONSIBLE FOR PREVENTION OF FLOATATION OF STRUCTURES DURING CONSTRUCTION.
11. MAXIMUM LENGTH OF CONCRETE PLACEMENT IN ANY DIRECTION, UNLESS SHOWN OTHERWISE:
    A. SLABS: 25 FEET.
12. UNLESS NOTED OTHERWISE, DO NOT BACKFILL TUNNELS, VAULTS OR PIT WALLS UNTIL TOP SLAB HAS BEEN INSTALLED AND ALL CONCRETE HAS ATTAINED 100% OF DESIGN STRENGTH.

REINFORCING STEEL NOTES:

1. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
2. CONFORM WITH ACI 318 AND ACI STANDARD FOR "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT."
3. REINFORCING SHALL BE CONTINUOUS AROUND ALL CORNERS UNLESS SHOWN OTHERWISE.
4. SHIFT REINFORCING BARS TO CLEAR ANCHOR BOLTS AND EMBEDDED ITEMS; OBTAIN ENGINEER'S APPROVAL AND ADD EXTRA REINFORCING BAR IF REQUESTED BY ENGINEER. CUTTING OF REINFORCING BARS NOT PERMITTED.
5. REINFORCING SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS UNLESS SHOWN OTHERWISE.
6. TERMINATE ALL REINFORCING STEEL AT EXPANSION JOINTS UNLESS SHOWN OTHERWISE.
7. TACK WELDING TO REINFORCING BARS IS NOT PERMITTED.
8. LAP ALL #11 AND SMALLER BAR SPLICES AND WELD OR MECHANICALLY CONNECT ALL #14 AND LARGER BAR SPLICES UNLESS APPROVED OTHERWISE BY ENGINEER.
8. MINIMUM BAR SPLICE LAP LENGTH SHALL BE AS SHOWN. WHERE LAP LENGTH IS NOT SHOWN ON DRAWINGS, USE MINIMUM LENGTH SHOWN IN THE FOLLOWING TABLE.

REINFORCING BAR MINIMUM SPLICE LAP LENGTH IN INCHES									
BAR SIZE	#3	#4	#5	#6	#7	#8	#9	#10	#11
TOP BARS	24	32	40	48	70	80	90	102	113
OTHER BARS	19	25	31	37	54	62	70	78	87

   - A. CLASS B SPLICE FOR fy = 60,000 PSI, f'c = 4000 PSI, NORMAL WEIGHT CONCRETE, UNCOATED BARS AND FOLLOWING:
     1) CLEAR SPACING OF BARS 2 BAR DIA AND COVER BAR DIA, OR
     2) CLEAR SPACING OF BARS DIA BAR AND COVER DIA BAR, AND STIRRUPS OR TIES THROUGHOUT LAP NOT LESS THAN ACI CODE MINIMUM.
   - B. TOP BARS ARE DEFINED AS HORIZONTAL BARS PLACED SO THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.
   - C. EPOXY COATED REINFORCING STEEL:
     1) USE 1.5 TIMES LAP LENGTH LISTED IN TABLE WHERE COVER IS LESS THAN THREE BAR DIAMETERS OR CENTER TO CENTER SPACING OF BARS IS LESS THAN 7 BAR DIAMETERS.
     2) USE 1.2 TIMES LAP LENGTH LISTED IN TABLE FOR BARS WHERE COVER AND SPACING BOTH EXCEED VALUES LISTED IN ITEM 1).

   FOR TENSILE AREA SPLICE FOR WELDED WIRE FABRIC, USE 2 SPACINGS OF WIRES PLUS 2"

9. SPLICE LAP LENGTH FOR WELDED WIRE FABRIC SHALL BE NOT LESS THAN 6" OR SPACING OF WIRES PLUS 2" WHICHEVER IS GREATER.
10. LOCATE SPLICES WHERE SHOWN. WHERE NO SPLICES ARE SHOWN, TOP REINFORCING IN SLABS AND BEAMS MAY BE SPLICED IN MIDDLE ONE-HALF OF SPAN BETWEEN SUPPORTS AND BOTTOM REINFORCING MAY BE SPLICED OVER OR NEAR SUPPORTS.
11. REINFORCING BAR SPLICES PERMITTED ONLY WHERE SHOWN OR APPROVED BY ENGINEER.
12. FOR SLAB REINFORCING BARS, PLACE BARS SPANNING IN THE SHORT DIRECTION WITH MINIMUM CONCRETE COVER SPECIFIED UNLESS SHOWN OTHERWISE.
13. PROVIDE STANDARD 90 DEGREE HOOKS FOR TOP REINFORCING BARS AT DISCONTINUOUS END OF ALL BEAMS UNLESS SHOWN OTHERWISE.
14. EXTEND TOP REINFORCING BARS OF BEAMS INTO ADJACENT SLAB 2'-0" MINIMUM BEYOND FARTHEST EDGE OF INTERSECTED BEAM WHEN BEAM IS DISCONTINUOUS AT INTERSECTING BEAM UNLESS SHOWN OTHERWISE.
15. EXTRA REINFORCING SHALL BE IN ADDITION TO REINFORCING SHOWN OR NOTED.
19. ALL BARS INDICATED AS BEING BENT SHALL HAVE STANDARD 90 DEGREE HOOKS UNLESS SHOWN OTHERWISE. 180 DEGREE HOOKS ARE AN ACCEPTABLE ALTERNATE WHERE APPROVED BY ENGINEER.
20. PROVIDE EXTRA HAIRPIN REINFORCING AROUND ALL ANCHOR BOLTS LARGER THAN 3/4" DIAMETER. EXTEND LEGS OF HAIRPIN THE STANDARD EMBEDMENT LENGTH. SPACE HAIRPINS, ALONG BOLT, 1-1/2" FROM SURFACE AND AT 3" ON CENTER AROUND UPPER 1/3 OF ANCHOR BOLT EMBEDMENT (8" MAXIMUM).

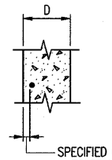
REINFORCING STEEL NOTES (continued):

ANCHOR BOLT DIAMETER	HAIRPIN SIZE UNLESS SHOWN OTHERWISE
<1-1/2"	#3
1-5/8" TO 2" INCL	#4
>2"	#5

21. ALL BARS SHALL BE SECURELY PLACED IN FINAL POSITION PRIOR TO PLACING CONCRETE. PLACING BARS INTO WET CONCRETE IS PROHIBITED.
22. REINFORCING CONCRETE COVER UNLESS OTHERWISE SHOWN: 1 1/2" WITH FOLLOWING EXCEPTIONS; 2" FOR #6 BARS AND LARGER FOR CONCRETE EXPOSED TO EARTH OR WEATHER; 3" WHEN DEPOSITED AGAINST EARTH; 3/4" FOR WALLS AND SLABS NOT EXPOSED TO EARTH OR WEATHER.

MAINTAIN 2" FOR WATER-CONTAINMENT STRUCTURES.

23. CONCRETE REINFORCEMENT SHALL BE PLACED WITHIN FOLLOWING TOLERANCE RELATIVE TO FORMED OR UNFORMED CONCRETE SURFACE:



SPECIFIED COVER	TOLERANCE	
	D ≤ 12"	D > 12"
3/4"	-1/8", +1/4"	-1/8", +3/8"
1"	±1/4"	-1/4", +3/8"
1 1/2" OR GREATER	±3/8"	-3/8", +1/2"

NOTE:
TOLERANCES APPLY ONLY AT LOCAL ANOMALIES.
SIZE CHAIRS AND SPACERS FOR SPECIFIED COVER.

MASONRY WALL REINFORCEMENT:

1. JOINT (HORIZONTAL) REINFORCEMENT:
   - A. MATERIAL: SEE SPECIFICATIONS.
   - B. SIZE: STANDARD 9 GAGE.
   - C. SPACING 16" OC VERTICALLY. PLACE ADDITIONAL JOINT REINFORCEMENT AS FOLLOWS:
     1) IN FIRST AND SECOND HORIZONTAL JOINTS ABOVE AND BELOW OPENINGS. EXTEND 30" MINIMUM EACH SIDE OF OPENING.
     2) CONTINUOUS IN FIRST AND SECOND JOINTS BELOW TOP OF WALLS.
     3) AT OTHER LOCATIONS NOTED ON DRAWINGS.
   - D. LAP JOINT REINFORCEMENT ENDS 6" MINIMUM.
   - E. REINFORCE JOINT CORNERS AND INTERSECTIONS WITH PREFABRICATED CORNER AND "T" INTERSECTION JOINT REINFORCING.
2. CELL (VERTICAL) REINFORCEMENT:
   - A. MATERIAL: DEFORMED BARS CONFORMING TO SPECIFICATIONS. BAR SIZE: #5, UNLESS NOTED OTHERWISE;
   - B. REINFORCED CELL HORIZONTAL SPACING: 2'-0" MAXIMUM. PLACE ADDITIONAL CELL REINFORCEMENT AS FOLLOWS:
     1) IN CELL IMMEDIATELY ON EACH SIDE OF CONTROL AND EXPANSION JOINTS.
     2) IN TWO ADJACENT CELLS LOCATED IMMEDIATELY ON EACH SIDE OF OPENINGS.
     3) AT ALL CORNER CELLS.
     4) AT ALL OTHER LOCATIONS WHERE NOTED ON DRAWINGS.
   - C. LAP REINFORCING BARS AS FOLLOWS: #4 BAR: 2'-6", #5 BAR: 3'-0", #6 BAR: 3'-6".
   - D. REINFORCING SHALL EXTEND FULL HEIGHT OF WALL EXCEPT WHERE INDICATED OTHERWISE OR WHERE INTERRUPTED BY WALL OPENINGS.
   - E. EACH REINFORCED CELL FOR EXTERIOR MASONRY WALL SHALL HAVE A #5 DOWEL CAST IN FOUNDATION.
   - F. EACH REINFORCED CELL FOR INTERIOR MASONRY WALL SHALL HAVE A #5 DOWEL EITHER CAST IN SLAB OR DRILLED AND EPOXY GROUTED 6" INTO SLAB.
   - G. EACH REINFORCED CELL SHALL BE GROUTED FULL AND PROPERLY CONSOLIDATED.
3. BOND BEAM REINFORCEMENT:
   - A. 2-#5 BARS, UNLESS NOTED OTHERWISE.

REVISIONS NAME	DATE

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60193-2801
www.stanleygroup.com
Illinois Firm Registration No: 184-006533

ILLINOIS DEPARTMENT OF TRANSPORTATION

STRUCTURAL GENERAL NOTES – SHEET 1

SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010
DRAWN BY: A.T.
CHECKED BY: A.N.

PLOT DATE = 3/22/2010
FILE NAME = c:\projects\s-01.dgn
PLOT SCALE = 100.0000 '/ In.
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	21
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99

MASONRY WALL TIES:

1. MATERIAL: SEE SPECIFICATIONS.

2. EXTERIOR WALL:
   A. CONNECT WALL TO ALL STRUCTURAL STEEL COLUMNS WITH TIES AT 16 INCHES ON CENTER, VERTICALLY.

3. INTERIOR WALL:
   A. CONNECT WALL TO STEEL STRUCTURE AS INDICATED ON DETAILS.
   B. CONNECT WALL TO ALL STRUCTURAL STEEL COLUMNS WITH TIES AT 16 INCHES ON CENTER, VERTICALLY.

STEEL NOTES:

1. DIMENSIONS: TO CENTERLINES OF COLUMNS, BEAMS AND PIPES; BACKS OF CHANNELS AND ANGLES; TOP SURFACES OF BEAMS AND TUBES, AND INSIDE OF BREECHING PLATES UNLESS SHOWN OTHERWISE.

2. ELEVATIONS: REFER TO TOP SURFACE OF FLANGE OF MEMBER (AND CENTERLINE OF PIPES) UNLESS SHOWN OTHERWISE.

3. FRAMING MEMBERS NOTED BY DEPTH AND WEIGHT SHALL CONFORM TO THE AISC SPECIFICATION. FRAMING MEMBERS NOTED BY DEPTH ONLY ARE FULLY SIZED ON ANOTHER PLAN OR ELEVATION.

4. THE EXTENT OF GUARDRAIL AND KICK PLATE AROUND FLOORS, PLATFORMS, AND STAIRS IS INDICATED BY A GUARDRAIL CENTERLINE TOGETHER WITH KICK PLATE DETAILS. PROVIDE GUARDRAIL AND KICK PLATE AROUND ALL NEW AND MODIFIED PLATFORMS.

5. WHERE OPENINGS IN GRATING ARE SHOWN OR REQUIRED FOR PASSAGE OF PIPING, COLUMNS, OR OTHER STRUCTURAL STEEL, EDGE BIND OPENING WITH 1/4" KICK PLATE WELDED TO THE GRATING.

6. COORDINATE NEW GUARDRAIL, PLATFORMS AND DOOR FRAMES WITH EXISTING AND THOSE FURNISHED BY SPECIAL PR PRIOR TO FABRICATION. MAKE FIELD MEASUREMENTS AND MINOR MODIFICATIONS WHERE CONFLICTS OCCUR.

7. ALL KICK PLATES SHALL EXTEND A MINIMUM OF 4 INCHES ABOVE WALKING SURFACE.

8. WELD SYMBOLS SHOWN MAY NOT DISTINGUISH BETWEEN FIELD AND SHOP WELDING. CONTRACTOR SHALL PROVIDE AS MUCH WELDING AS PRACTICAL IN THE SHOP. CONTRACTOR'S SHOP DRAWINGS SHALL SHOW ALL WELDING AND DISTINGUISH BETWEEN FIELD AND SHOP WELDING.

9. WHERE FILLET WELD SIZES ARE NOT NOTED ON DRAWINGS, PROVIDE MINIMUM SIZE IN ACCORDANCE WITH AWS D1.1, 5.14. ALL OTHER TYPE WELDS NOT SIZED ON DRAWINGS SHALL DEVELOP FULL STRENGTH OF MEMBERS ATTACHED.

10. PROVIDE 2" DIAMETER DRAINAGE HOLES @ 4'-0" OC WHERE FRAMING MEMBER ORIENTATION MAY TRAP WATER.

11. ANCHOR BOLTS FOR ALL MACHINERY OVER 30 HORSEPOWER SHALL HAVE TWO HEAVY HEX NUTS.

12. SET ELEVATION OF BASEPLATES TO TOP OF BASEPLATE AND ANCHOR BOLTS TO TOP OF BOLT. DO NOT WORK FROM TOP OF CONCRETE.

13. PROVIDE STAINLESS STEEL FASTENERS FOR ALL BOLTED CONNECTIONS WHERE ONE OR MORE MEMBERS OR ELEMENTS ARE STAINLESS STEEL MATERIAL.

14. PROVIDE GALVANIZED FASTENERS FOR ALL BOLTED CONNECTIONS WHERE ONE OR MORE MEMBERS OR ELEMENTS ARE GALVANIZED MATERIAL.

15. MISCELLANEOUS ANCHOR BOLTS, EXPANSION ANCHORS, ANCHOR RODS, AND FASTENERS NOT INDICATED, BUT REQUIRED FOR ANCHORAGE OF EQUIPMENT AND MATERIALS, SHALL BE PROVIDED (AS RECOMMENDED BY MANUFACTURER OF ITEMS). ANCHORAGE WILL BE SUBJECT TO REVIEW BY ENGINEER.

16. CONTRACTOR SHALL FURNISH AND INSTALL MISCELLANEOUS STEEL ITEMS NOT SHOWN BUT NECESSARY FOR COMPLETE CONSTRUCTION OF PROJECT.

17. ANCHOR BOLTS FOR MECHANICAL EQUIPMENT WHICH ARE NOT DETAILED ON DRAWINGS, BUT ARE FURNISHED UNDER THIS CONTRACT, SHALL HAVE SUFFICIENT EXTENSION FOR TWO HEAVY HEX NUTS.

18. BOLT HOLES IN BASEPLATES SHALL BE SIZED AS FOLLOWS UNLESS INDICATED OTHERWISE ON DRAWINGS:

STEEL NOTES (continued):

DIAMETER OF BOLT	HOLE DIAMETER
5/8"	7/8"
3/4"	1 1/16"
7/8"	1 3/16"
1" TO 2"	BOLT DIA + 1/2"
OVER 2"	BOLT DIA + 1"

19. WHERE HANGERS OR POSTS CONNECT TO TOP OR BOTTOM FLANGE OF HORIZONTAL WIDE-FLANGE BEAMS, FURNISH 3/8" WEB VERTICAL STIFFENER PLATE ON EACH SIDE OF BEAM WEB, CONTINUOUSLY FILLET WELDED TO WEB AND FLANGE, UNLESS NOTED OTHERWISE.

20. WHERE PIPE OR EQUIPMENT HANGERS ATTACH TO BOTTOM OR TOP BEAM FLANGE, FURNISH MINIMUM 3/8" STIFFENER PLATE ON EACH SIDE OF BEAM WEB, CONTINUOUSLY WELDED TO WEB AND FLANGE. STIFFENER PLATE MAY BE OMITTED IF HANGER ATTACHES TO BEAM BOTTOM FLANGE AND CONSISTS OF LUG PLATE IN PLANE OF AND LOCATED DIRECTLY BENEATH BEAM WEB.

21. PROVIDE MISCELLANEOUS STEEL AS REQUIRED FOR SUPPORT OF GRATING, CHECKERED PLATE, CONCRETE FORM DECK AND ROOF DECK AT COLUMN PENETRATIONS AND OTHER OBSTRUCTIONS TO NORMAL SUPPORT STEEL.

STRUCTURAL STEEL CONNECTION DESIGN NOTES:

1. CONNECTIONS SHALL BE DESIGNED AT 100% OF ALLOWABLE STRESS PER AISC STEEL CONSTRUCTION MANUAL, FOR COMBINATION OF SPECIFIED FORCES AND MOMENT, AS APPLICABLE.

2. UNLESS NOTED OTHERWISE, ALL BEAM-TO-COLUMN AND BEAM-TO-BEAM CONNECTIONS SHALL BE DOUBLE CLIP ANGLE CONNECTIONS, WITH MINIMUM OF 2 ROWS OF BOLTS. ALTERNATE CONNECTION CONCEPTS AT LOCATIONS OF HIGH AXIAL FORCE IN BEAMS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW PRIOR TO USE.

3. UNLESS NUMBER OF BOLTS IS SPECIFICALLY CALLED OUT ON DRAWINGS, DETAILS OF BOLTED CONNECTIONS ARE NOT INTENDED TO SHOW EXACT NUMBER OF BOLTS, BUT ARE SYMBOLIC ONLY.

4. VERTICAL DIAGONALS WORK POINT: COLUMN CENTROID AND BEAM CENTROID CENTERLINE INTERSECTION. VERTICAL DIAGONALS MAY BE OFFSET FROM INTERSECTION WORK POINTS UP TO 8 INCHES TO SIMPLIFY CONNECTIONS, SUBJECT TO ENGINEER'S REVIEW.

5. HORIZONTAL DIAGONALS WORK POINT: COLUMN CENTROID OR BEAM CENTERLINE INTERSECTION, AS APPLICABLE, UNLESS NOTED OTHERWISE.

6. PROVIDE SLOTTED OR OVERSIZE HOLES WHERE REQUIRED TO FACILITATE INSTALLATIONS TO EXISTING MEMBERS. USE SLIP CRITICAL BOLTS FOR THESE CONNECTIONS.

7. FIELD DRILL HOLES FOR CONNECTION TO EXISTING STEEL; WELDING TO EXISTING STEEL WILL BE PERMITTED ONLY WHERE INDICATED OR SPECIFICALLY APPROVED BY ENGINEER.

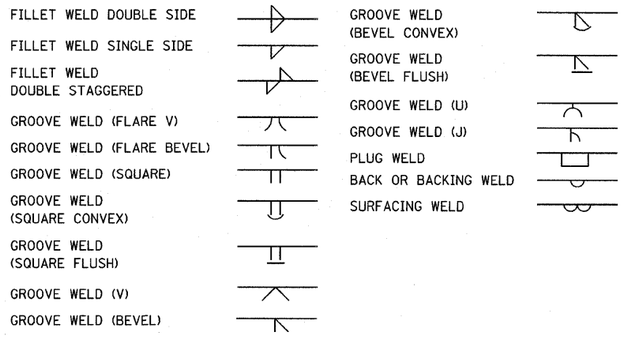
PIPE SUPPORT STEEL NOTES:

1. FOR PIPE SUPPORT LOCATIONS, SEE MECHANICAL DRAWINGS.

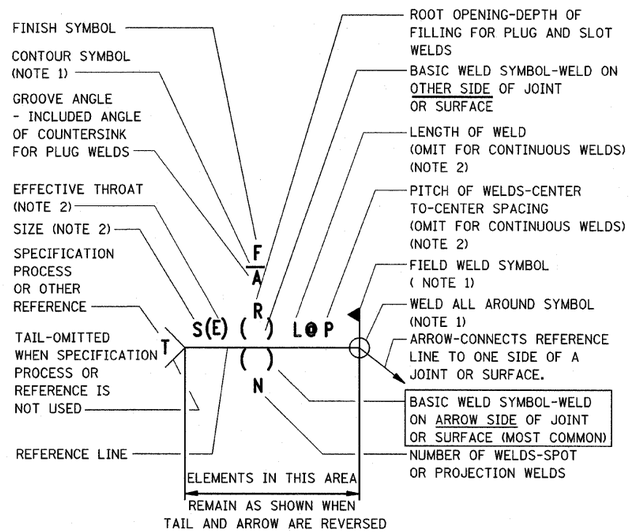
ABBREVIATIONS:

BM	BEAM	PL.	PLATE
CL	CENTER LINE	PROJ	PROJECTION
CLR	CLEAR	RET	RETURN
CMU	CONCRETE MASONRY UNIT	SCH.	SCHEDULE
CONC	CONCRETE	S.S.	STAINLESS STEEL
DIA	DIAMETER	STL	STEEL
EA	EACH	S. STL	STAINLESS STEEL
(E)	EXISTING	T/	TOP
EMB	EMBEDMENT	T.P.	TOE PLATE
EQ	EQUAL		
FRP	FIBER REINFORCED PLASTIC		
F.S.	FAR SIDE		
GALV	GALVANIZED		
GRTG	GRATING		
G.R.	GUARD RAIL		
H.R.	HAND RAIL		
HLS	HOLES		
LG	LONG		
L.L.V.	LONG LEG VERTICAL		
LSL	LONG SLOTTED HOLE		
N.S.	NEAR SIDE		

WELD SYMBOLS



LOCATION OF ELEMENTS OF A WELDING SYMBOL



NOTES:
(1) SUPPLEMENTARY SYMBOL.
(2) SHOWN ON SAME SIDE OF REFERENCE LINE AS THE WELD SYMBOL. IF "WELD BOTH SIDES" DIMENSIONS ARE REQUIRED ON BOTH SYMBOLS, EVEN IF SAME DIMENSIONS.

PUMP STATION TRUCK LOT AND TRANSFORMER PAD WORK (MECHANICALLY STABILIZED EARTH RETAINING WALL CONSTRUCTION) WILL BE PERFORMED AS A SEPARATE CONTRACT.

THE CONTRACTOR SHALL COORDINATE HIS/HER WORK WITH THE PUMP STATION TRUCK LOT AND TRANSFORMER PAD CONTRACTOR IN ACCORDANCE WITH ARTICLE 105.08 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.

Rev.

REVISIONS NAME	DATE

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60193-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-00633

ILLINOIS DEPARTMENT OF TRANSPORTATION

STRUCTURAL GENERAL NOTES – SHEET 2

SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010

DRAWN BY: A.T.
CHECKED BY: A.N.

PLOT DATE = 3/22/2010
FILE NAME = 060828-sht-S-02.dgn
PLOT SCALE = 1/1
USER NAME = #USER#

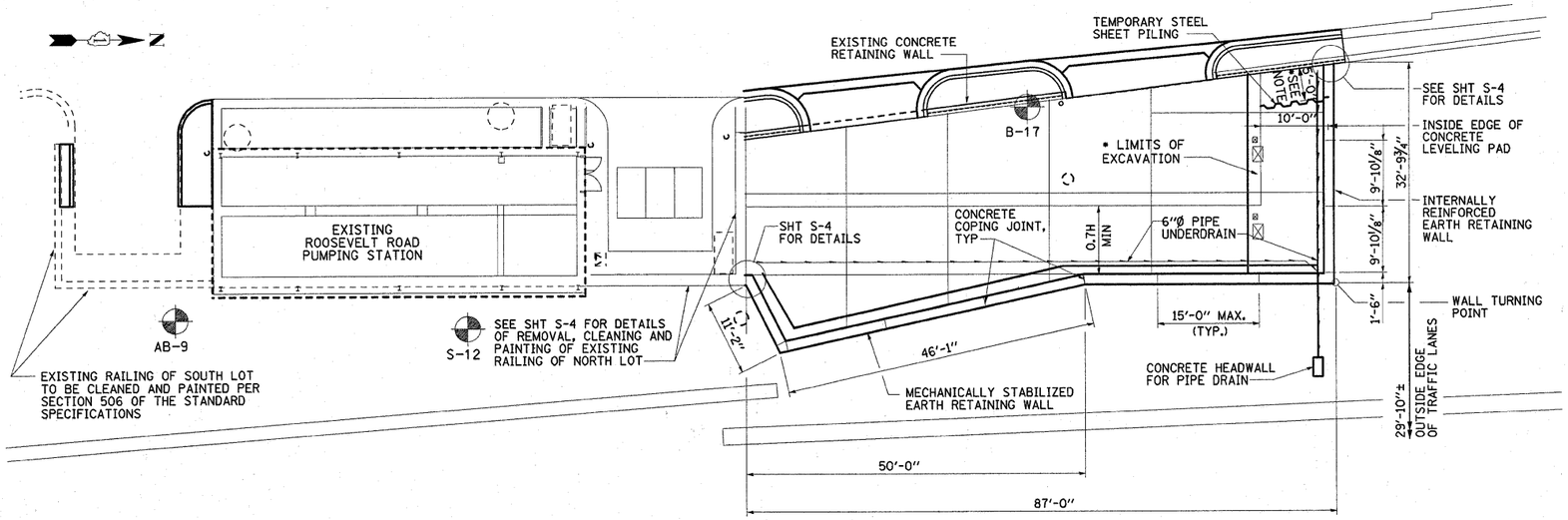
CONTRACT NO. 60828

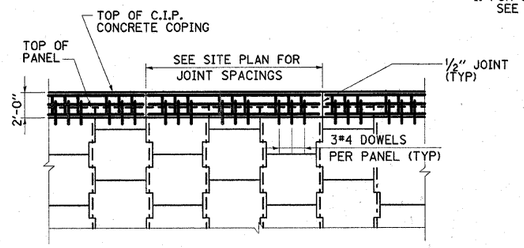
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	22
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99

GENERAL NOTES:

1. FOR STRUCTURAL GENERAL NOTES SEE DWG. S-1 AND S-2.





NOTE:
JOINTS IN COPING SHALL COINCIDE APPROXIMATELY WITH ℄ OF PANEL JOINT AND SPACED AS SHOWN IN PLAN VIEW. REINFORCING STEEL SHALL BE STOPPED 2" SHORT OF EACH SIDE OF THE JOINTS.

PARTIAL ELEVATION

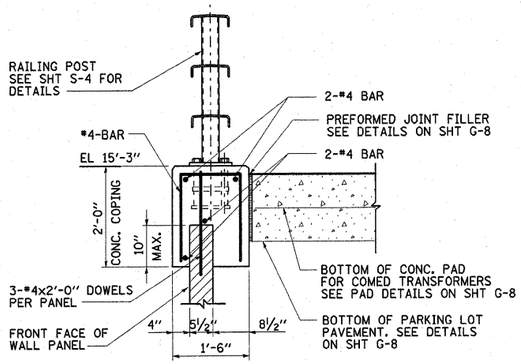
SITE PLAN

SEE SHT G-5, G-6 & G-7 FOR ADDITIONAL SITE DETAILS

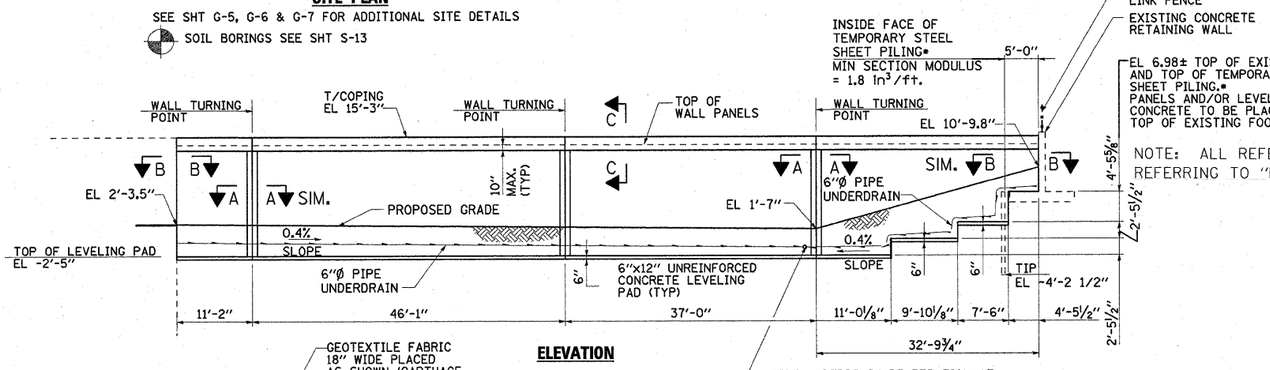
SOIL BORINGS SEE SHT S-13

PUMP STATION TRUCK LOT AND TRANSFORMER PAD WORK (MECHANICALLY STABILIZED EARTH RETAINING WALL CONSTRUCTION) WILL BE PERFORMED AS A SEPARATE CONTRACT.

THE CONTRACTOR SHALL COORDINATE HIS/HER WORK WITH THE PUMP STATION TRUCK LOT AND TRANSFORMER PAD CONTRACTOR IN ACCORDANCE WITH ARTICLE 105.08 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.



DETAIL C-C



ELEVATION

NOTE: ALL REFERENCES TO "INTERNALLY REINFORCED EARTH RETAINING WALLS" ARE REFERRING TO "MECHANICALLY STABILIZED EARTH RETAINING WALLS."

NOTES:

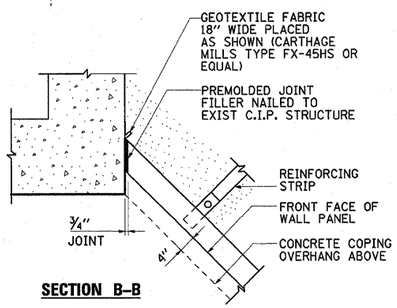
• GROUND IN FRONT OF EXISTING CONCRETE RETAINING WALL IS TO BE EXCAVATED TO THE TOP OF RETAINING WALL FOOTING AT EL 6.98 BEFORE DRIVING TEMPORARY STEEL SHEET PILING AS SHOWN. TEMPORARY STEEL SHEET PILING SHALL BE PERMANENTLY LEFT IN PLACE.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS AND SHOP DRAWINGS FOR THE MECHANICALLY STABILIZED EARTH RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "INTERNALLY REINFORCED EARTH RETAINING WALLS."

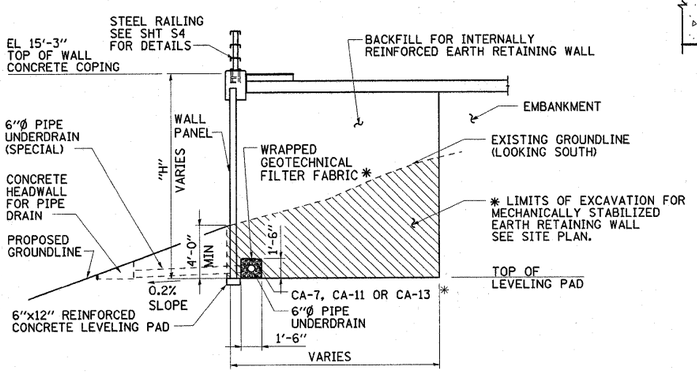
PLAN, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS AND DETAILS COMMON TO ANY WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE PRECAST PANEL FINISH TO BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

IF THE CONTRACTOR CHOOSES TO ALTER THE TEMPORARY CANTILEVERED SHEET PILING DESIGN REQUIREMENTS SHOWN ON THE PLANS, A DESIGN SUBMITTAL INCLUDING PLAN DETAILS AND CALCULATIONS WILL BE REQUIRED FOR REVIEW AND ACCEPTANCE BY THE ENGINEER.



SECTION B-B

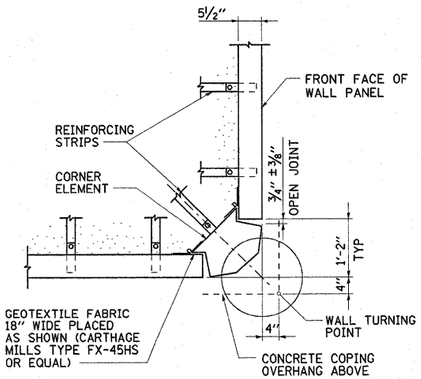


TYPICAL SECTION

✱ COST INCIDENTAL TO PIPE UNDERDRAINS FOR STRUCTURES 6"

ESTIMATE OF QUANTITIES	
INTERNALLY REINFORCED EARTH RETAINING WALL	1,315 SQ.FT
✱✱ CONCRETE COPING	119.8 FT.
CONCRETE HEADWALLS FOR PIPE DRAINS	1 EA.
TEMPORARY SHEET PILING	112 SQ.FT.
CLEANING AND PAINTING EXISTING STEEL RAILING	1 L.SUM
FURNISHING AND ERECTING STEEL RAILING	119.8 FT.
STEEL RAILING REMOVAL	23 FT.
PIPE UNDERDRAINS FOR STRUCTURES 6"	126 FT.
PIPE UNDERDRAIN 6" (SPECIAL)	12 FT.

✱✱COST INCLUDED WITH MECHANICALLY STABILIZED EARTH RETAINING WALLS



SECTION A-A

Rev.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STRUCTURAL SITE PLAN

SCALE: VERT. NO SCALE
HORIZ.
DATE: 3/2/2010

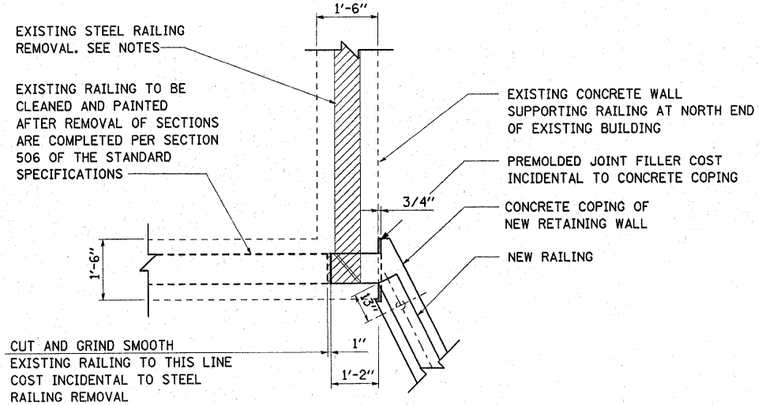
DRAWN BY: A.T.
CHECKED BY: A.N.

PLOT DATE = #DATE#
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
USER NAME = #USER#

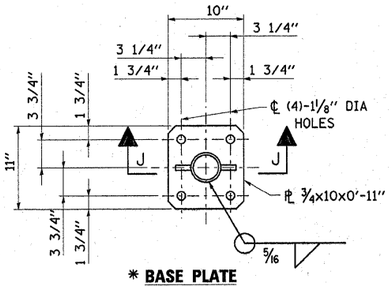
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	23
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

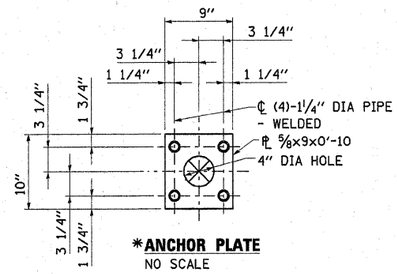
D-91-411-99



DETAIL A
NO SCALE
JOINT BETWEEN NEW AND EXISTING RAILING



*** BASE PLATE**
NO SCALE



***ANCHOR PLATE**
NO SCALE

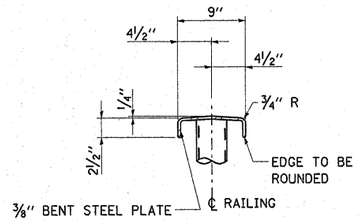
GENERAL NOTES:

1. FOR STRUCTURAL GENERAL NOTES SEE DWG. S-1 AND S-2.

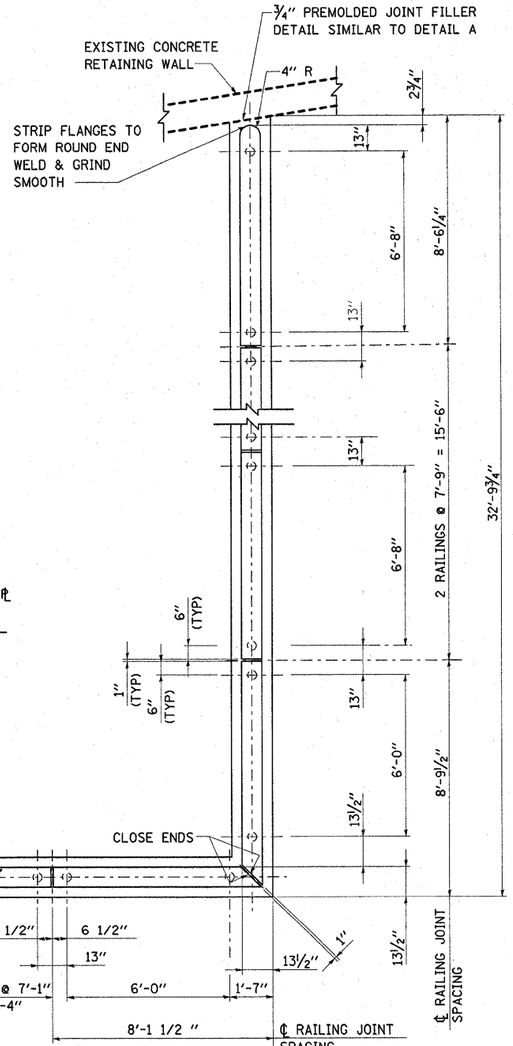
NOTES:

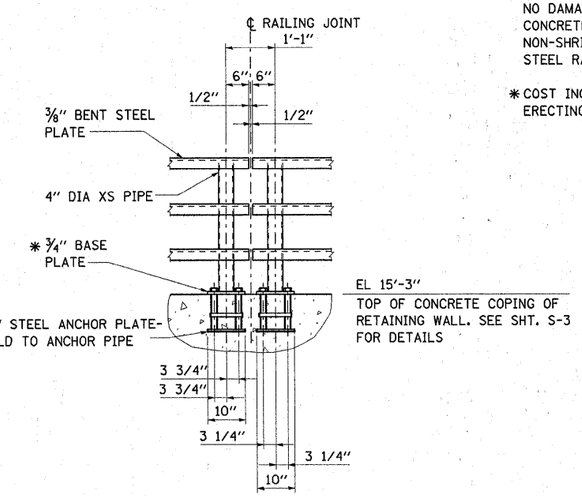
1. EXISTING RAILING SHALL BE CAREFULLY REMOVED FROM THE CONCRETE BASE WITH NO DAMAGE TO CONCRETE. HOLES LEFT IN CONCRETE BASE SHALL BE FILLED WITH NON-SHRINK GROUT. COST INCIDENTAL TO STEEL RAILING REMOVAL.

*COST INCIDENTAL TO FURNISHING AND ERECTING STEEL RAILING.

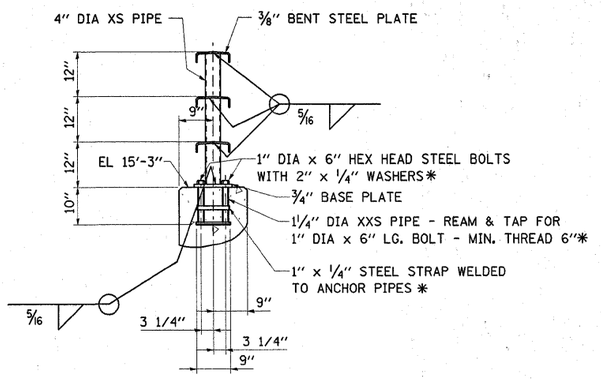


TYPICAL RAILING
NO SCALE





ELEVATION
NO SCALE



SECTION
NO SCALE

PLAN
SCALE: 3/8" = 1'-0"

SECTION J–J
NO SCALE

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

RAILING PLAN & DETAILS

SCALE: VERT. AS NOTED
HORIZ.
DATE: 3/2/2010

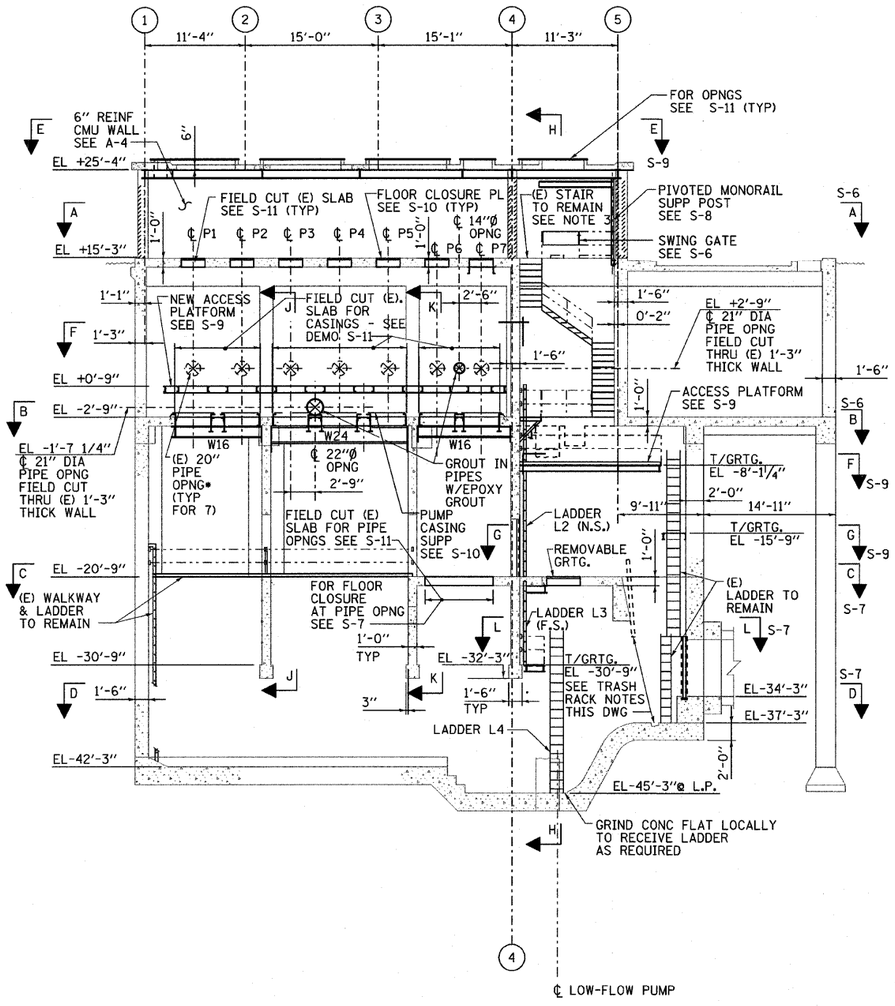
DRAWN BY: A.T.
CHECKED BY: A.N.

PLOT DATE = #DATE#
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
USER NAME = #USER#

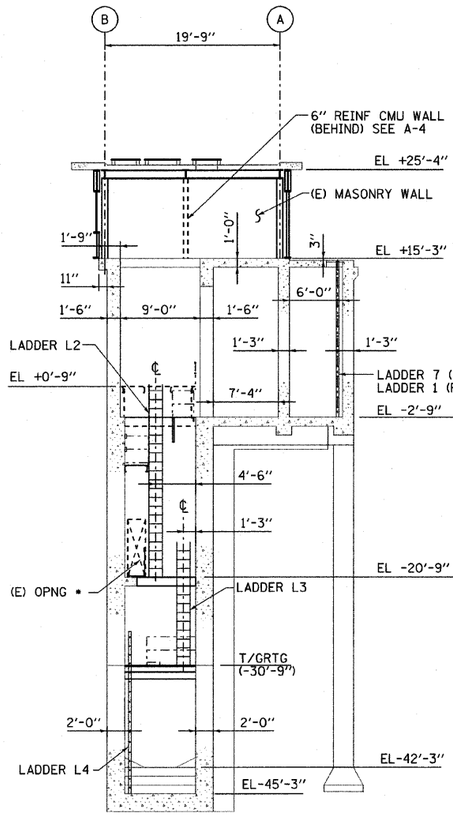
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	24
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

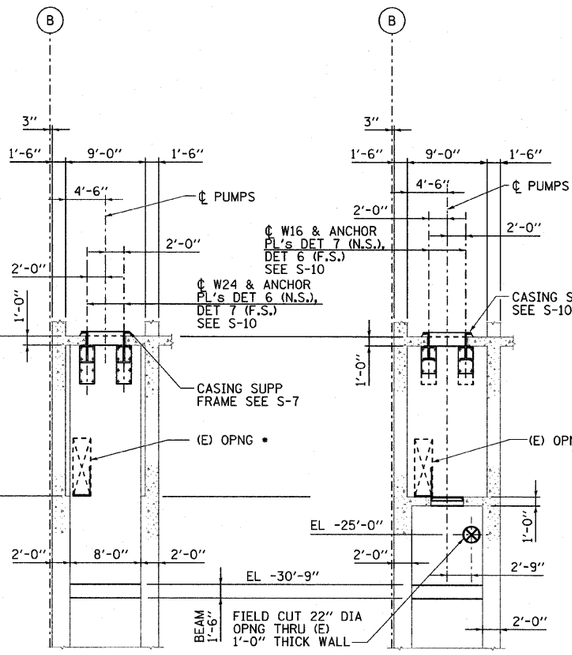
D-91-411-99



SECTION G–G
(S-6)
(LOOKING WEST)



SECTION H–H
(LOOKING SOUTH)
(E) STAIR NOT SHOWN FOR CLARITY



SECTION J–J
(LOOKING SOUTH)

SECTION K–K
(LOOKING SOUTH)

TRASH RACK NOTES:

1. CONTRACTOR SHALL FIELD MEASURE THE DIAMETER OF TRASH RAKE MOUNTING BOLT HOLES.
2. PROVE ANSI 304 S.S. THREAD RODS ASSEMBLY W/6" EMB. PER HILTI HIT HY 150.
3. THREAD RODS DIAMETER = MEASURED BOLT HOLE DIAMETER MINUS 1/16".
4. PATCH UP THE (E) BASE SLOT WITH CONCRETE AS REQ'D (I.E. ROUGHEN THE (E) SURFACE AND APPLY BONDING AGENT).

NOTE:

FOR OPENING SYMBOL SEE DWG S-11.

GENERAL NOTES:

1. FOR STRUCTURAL GENERAL NOTES SEE DWG. S-1 AND S-2.
2. ALL WORK ON THIS DRAWING SHALL FALL UNDER PAY ITEM "PUMP STATION GENERAL WORK".
3. CONTRACTOR MAY NEED TO TEMPORARILY REMOVE EXISTING STAIRS BETWEEN EL +15'-3" AND EL -2'-9" FOR INSTALLATION OF TRASH RACK. CONTRACTOR SHALL COORDINATE ALL TEMPORARY MODIFICATIONS AS REQUIRED FOR INSTALLATION OF TRASH RACK. ANY TEMPORARILY REMOVED ITEMS SHALL BE RE-INSTALLED IN THEIR ORIGINAL CONDITION AND REPAIRED IF ANY DAMAGE WAS INCURRED.

4 0 4 8 12 — 1/8"= 1'-0"

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-006533

ILLINOIS DEPARTMENT OF TRANSPORTATION

STRUCTURAL SECTIONS

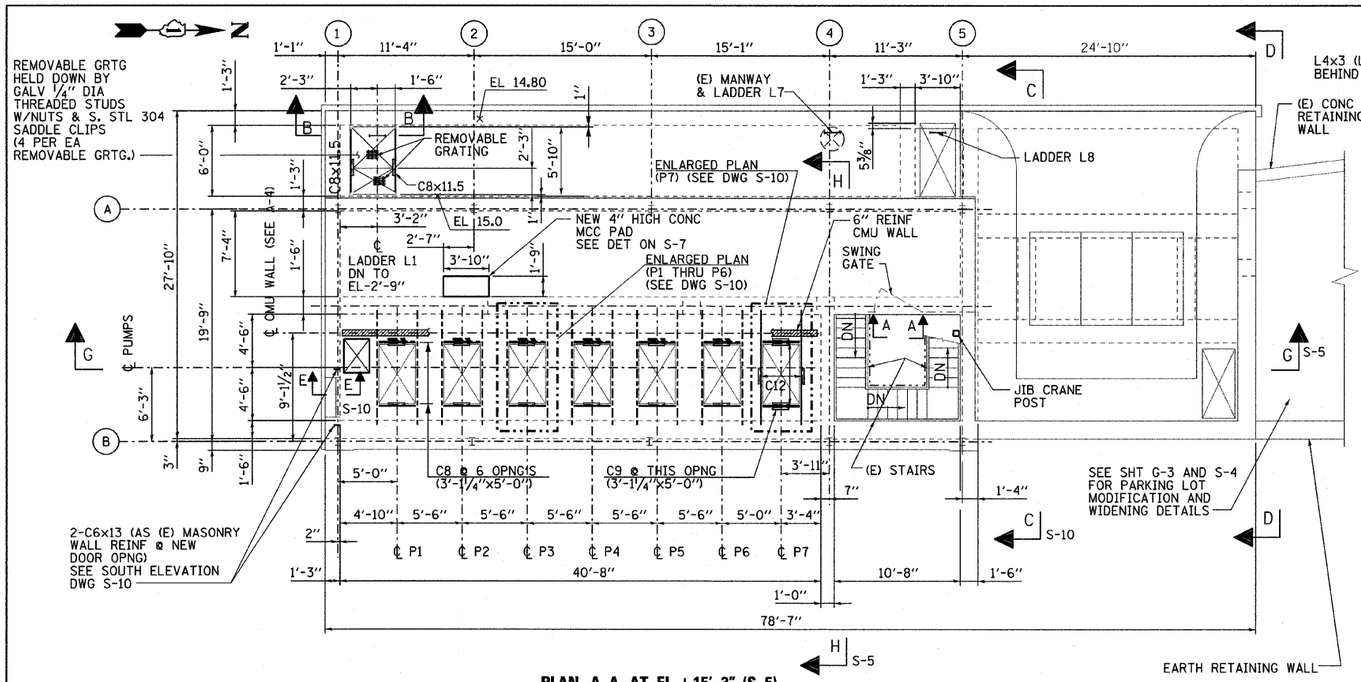
SCALE: VERT. 1/8"=1'-0"
HORIZ.
DATE: 3/23/2010

DRAWN BY: A.T.
CHECKED BY: A.N.

PLOT DATE = 3/22/2010
FILE NAME = D:\60828\dgn\s-s-05.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

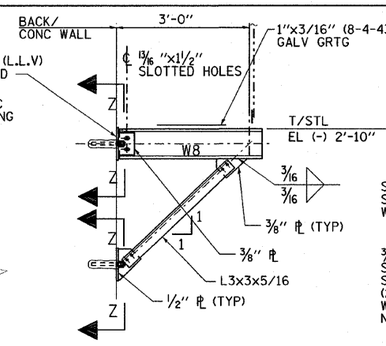
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	25
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
D-91-411-99				



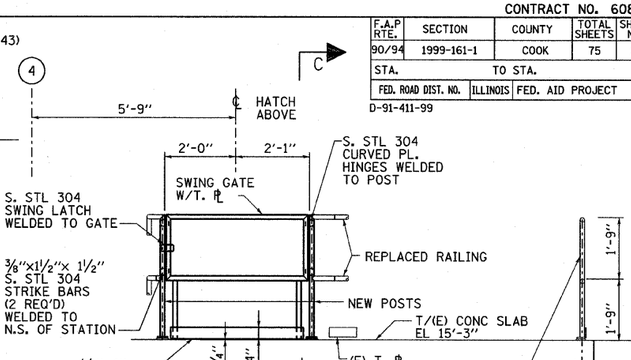
PLAN A–A AT EL.+15'-3" (S–5)

SEE S-11 FOR NEW FLOOR OPENINGS - L.L. = 150 PSF



SECTION Y–Y

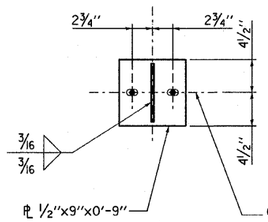
KNEE BRACE (K.B.)



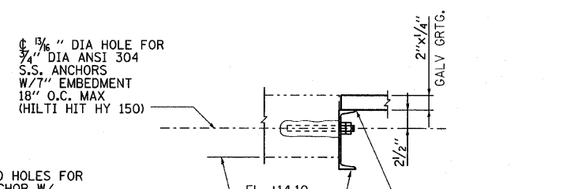
SECTION A–A

(E) STAIR NOT SHOWN

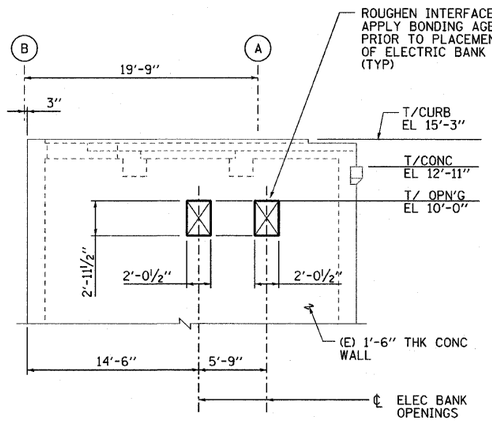
SECTION C–C



SECTION Z–Z

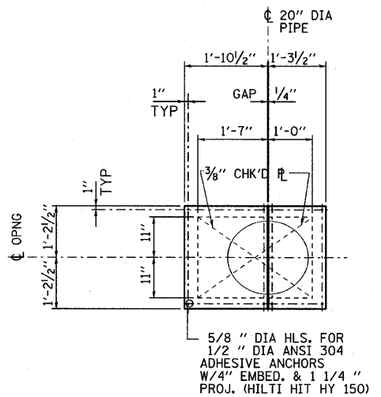


SECTION B–B



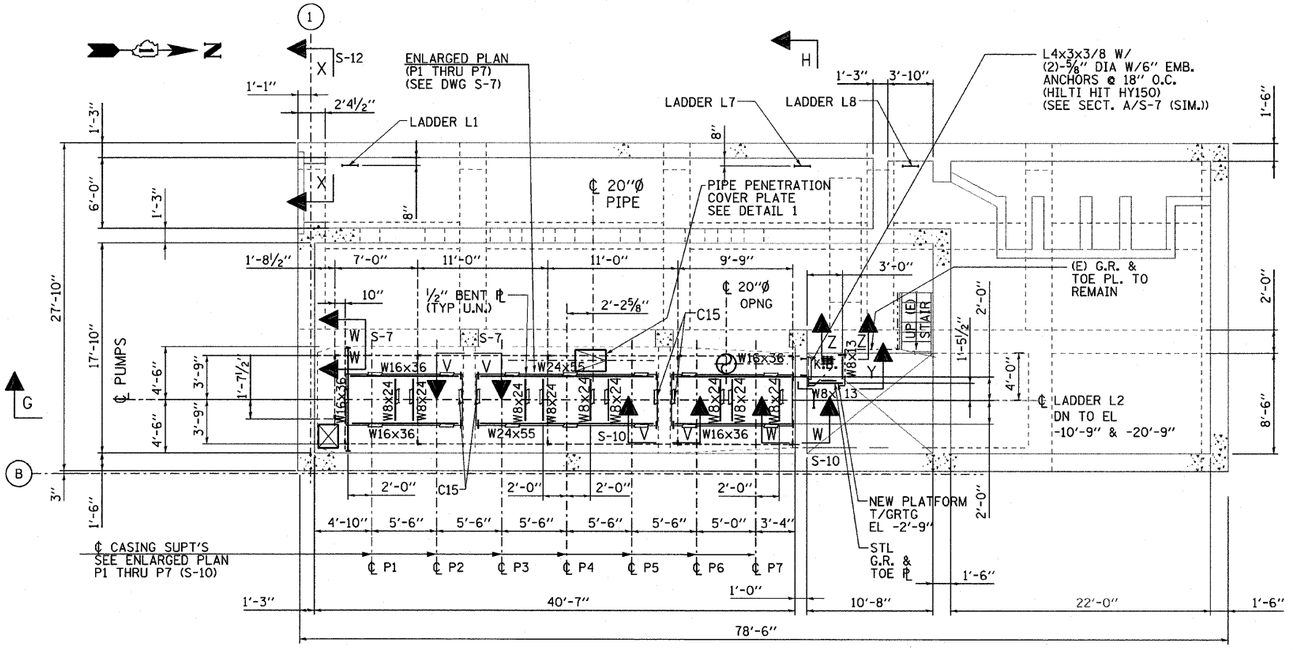
SECTION D–D (LOOKING SOUTH)

FIELD CUT WALL OPENING(S) ELEVATION
RETAINING WALLS NOT SHOWN



FIELD CUT FOR 20" DIA PIPE ELBOW

DETAIL 1



PLAN B–B AT EL.–2'–9" (S–2)

SEE S-11 FOR NEW FLOOR OPENINGS - L.L. = 100 PSF & ADDITIONAL DIMENSIONS

NOTE:

STEEL FRAMING BELOW (E)SLAB T/STEEL EL -3'-10"

GENERAL NOTES:

1. FOR STRUCTURAL GENERAL NOTES SEE DWG. S-1 AND S-2.
2. ALL WORK ON THIS DRAWING SHALL FALL UNDER PAY ITEM "PUMP STATION GENERAL WORK".

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-00533

ILLINOIS DEPARTMENT OF TRANSPORTATION

PLAN AT EL.'s +15'–3" & –2'–9" & SECTIONS

SCALE: VERT. NO SCALE HORIZ.

DATE: 3/23/2010

DRAWN BY: A.T.

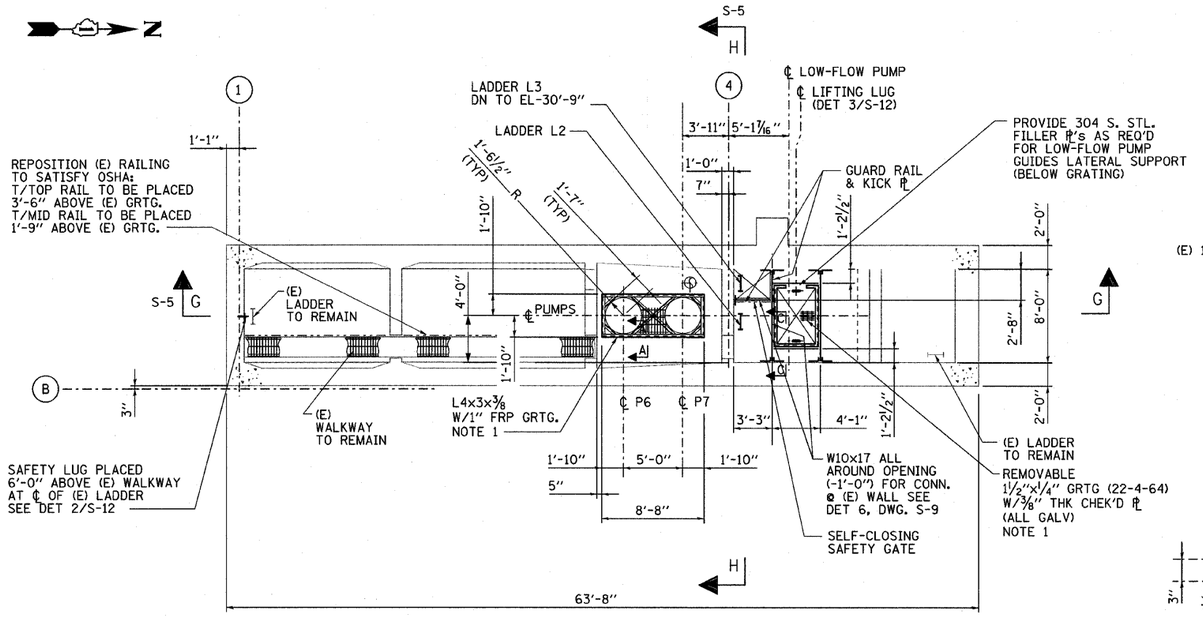
CHECKED BY: A.N.

PLOT DATE = 3/22/2010
FILE NAME = I:\60828-sht-s-86.dgn
PLOT SCALE = 1/8
USER NAME = #USER#

CONTRACT NO. 60828

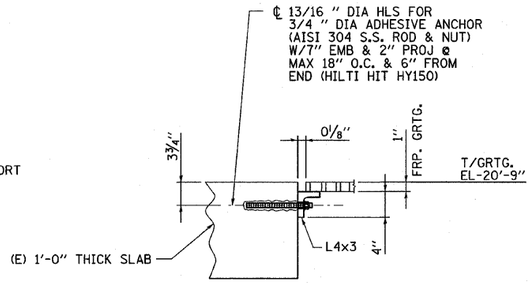
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	26
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99

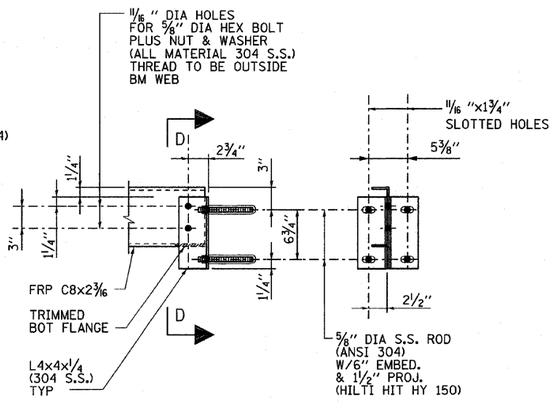


PLAN C–C AT EL. –20'–9" (S–5)

NOTE 1: SEE S-11 FOR FLOOR OPENINGS

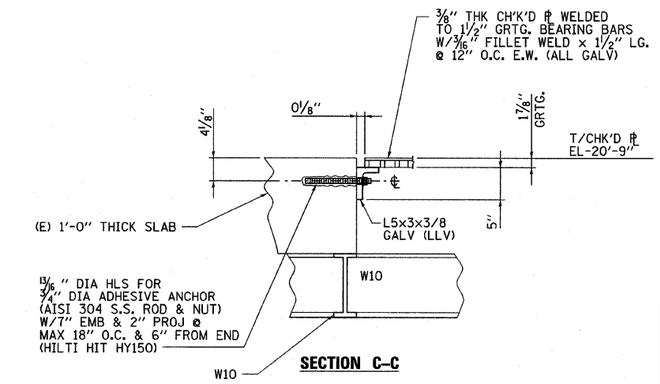


SECTION A–A

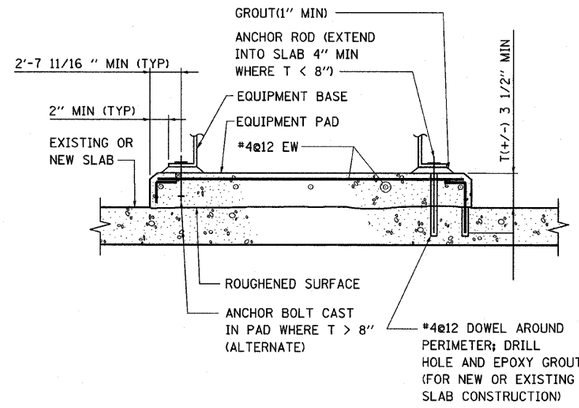


DETAIL 1

SECTION D–D



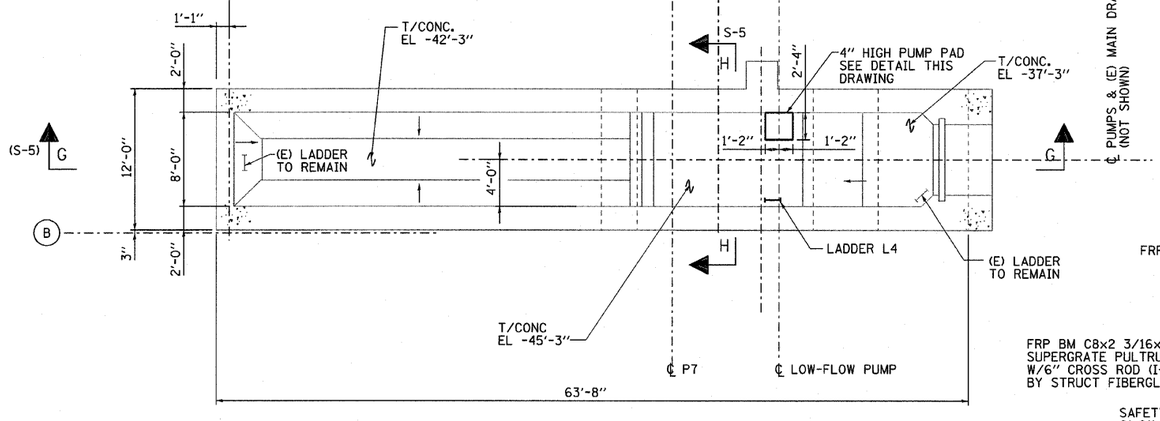
SECTION C–C



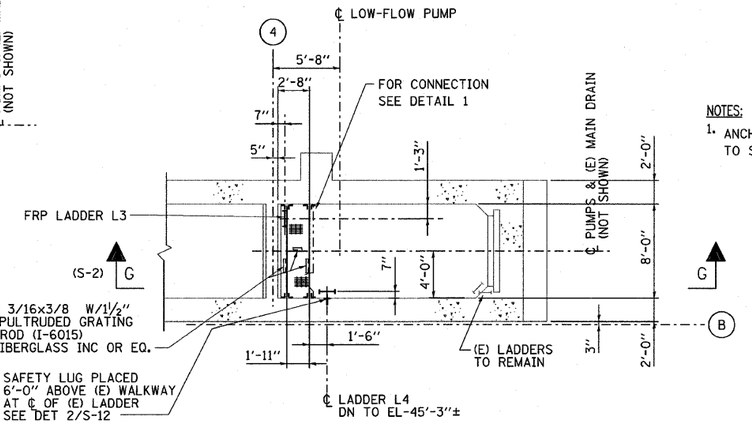
INTERIOR EQUIPMENT PAD DETAIL

NOTES:

1. ANCHOR BOLT/ROD SIZE AND LOCATION TO SUIT EQUIPMENT.



PLAN D–D AT EL. –42'–3" (S–5)



PARTIAL PLAN L–L AT EL. –30'–9" (S–5)

T/BMS (-1 1/2")

GENERAL NOTES:

1. FOR STRUCTURAL GENERAL NOTES SEE DWG. S-1 AND S-2.
2. ALL WORK ON THIS DRAWING SHALL FALL UNDER PAY ITEM "PUMP STATION GENERAL WORK".

⟶ DENOTES SLOPING SURFACE & ITS SLOPE-DOWN DIRECTION

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PLAN AT EL.'s –20'–9" & –42'–3" & SECTIONS

SCALE: VERT. NO SCALE
HORIZ.
DATE: 3/23/2010

DRAWN BY: A.T.
CHECKED BY: A.N.

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60643-2801
www.stanleygroup.com
Illinois Firm Registration No: 184-00533

PLOT DATE = 3/22/2010
FILE NAME = I:\60828-sht-S-07.dgn
PLOT SCALE = 1.0
USER NAME = #USER#

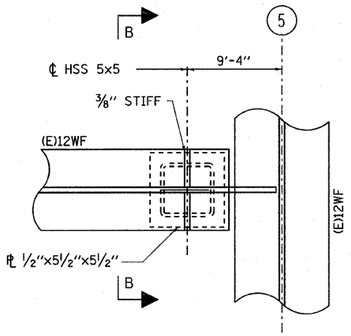
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	27
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

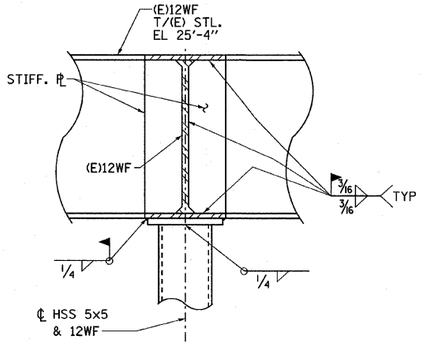
D-91-411-99

GENERAL NOTES:

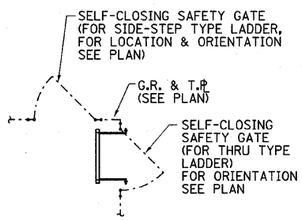
1. FOR STRUCTURAL GENERAL NOTES SEE DWG. S-1 AND S-2.
2. ALL WORK ON THIS DRAWING SHALL FALL UNDER PAY ITEM "PUMP STATION GENERAL WORK".



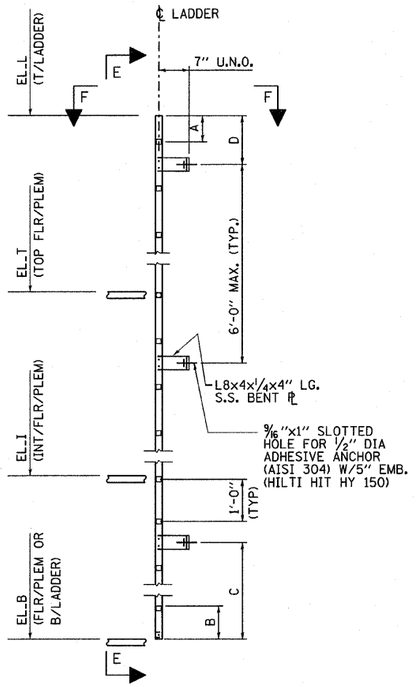
SECTION A–A



SECTION B–B
(E) ROOF SLAB NOT SHOWN

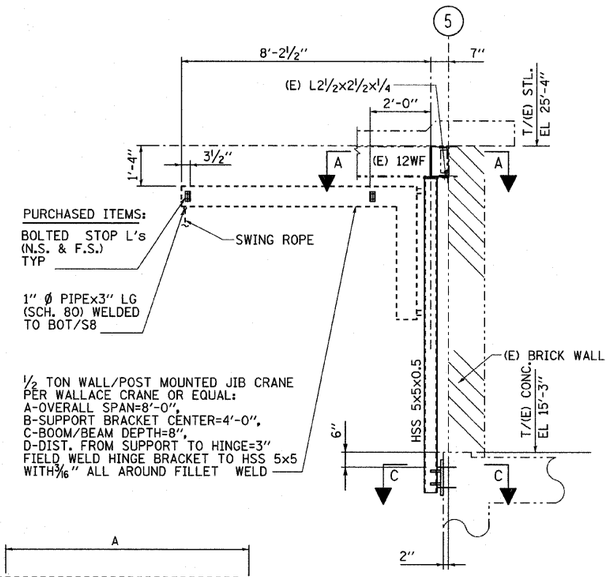


SECTION F–F

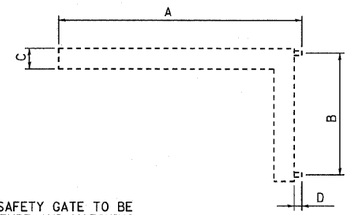


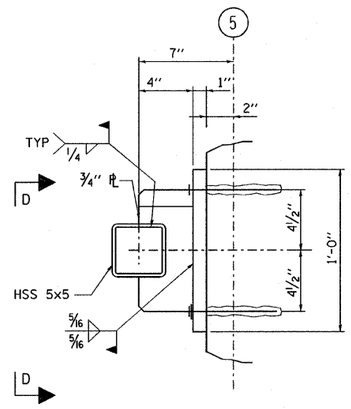
LADDER DETAIL

SIDE RAILS: 1.75"x1.75"x0.25" TUBE
RUNGS: 1.25"x1.25"x0.25" TUBE
W/NON-SKID SURFACE

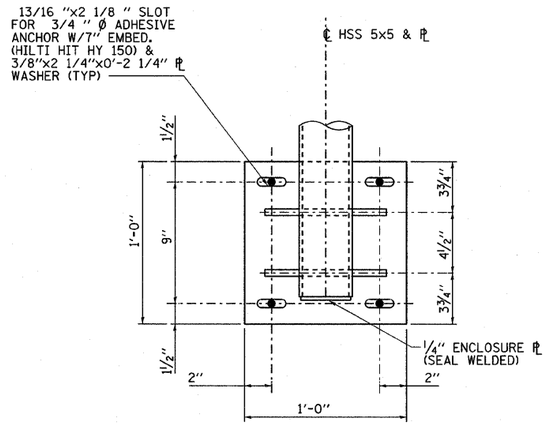


SECTION M–M (S–9)

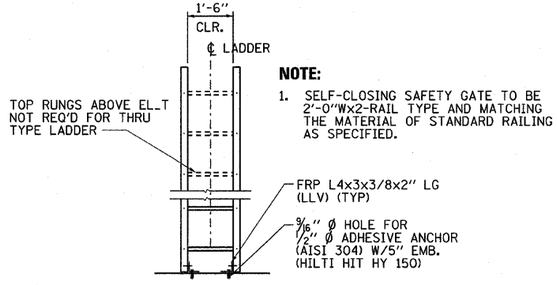




SECTION C–C



SECTION D–D



NOTE:
1. SELF-CLOSING SAFETY GATE TO BE 2'-0"Wx2-RAIL TYPE AND MATCHING THE MATERIAL OF STANDARD RAILING AS SPECIFIED.

SECTION E–E

LADDER SCHEDULE

LADDER MK	TYP	EL_L	EL_T	EL_I	EL_B	A	B	C	D	LOCATION DWG	REMARKS
L1	SIDE-STEP	EL 14.58'	EL 14.80'	N/A	EL -2.75'	6"	10"	3'-11 3/8"	1'-4 5/8"	S-3	
L2	SIDE-STEP	EL 2.08'	EL -2.75'	EL -10.75'	EL -20.75'	10"	1'-0"	2'-5 3/8"	2'-4 5/8"	S-3	
L3	SIDE-STEP	EL -15.92'	EL -20.75'	N/A	EL -30.75'	10"	1'-0"	1'-5 3/8"	1'-4 5/8"	S-4	
L4	SIDE-STEP	EL -25.92'	EL -30.75'	N/A	EL -45.25'	10"	6"	4'-11 3/8"	2'-4 5/8"	S-4	
L5	THRU	EL 4.58'	EL 0.75'	N/A	EL -2.75'	3'-10"	6"	3'-2"	4'-2"	S-6	
L6	THRU	EL 4.58'	EL 0.75'	N/A	EL -2.75'	3'-10"	6"	3'-2"	4'-2"	S-6	
L7	SIDE-STEP	EL 14.58'	EL 14.80'	N/A	EL -2.75'	6"	10"	3'-11 3/8"	1'-4 5/8"	S-3	
L8	SIDE-STEP	EL 14.58'	EL 14.80'	N/A	EL -2.75'	6"	10"	3'-11 3/8"	1'-4 5/8"	S-3	TOP BENT PL. +5 3/8" LONGER DUE (E) CONC. SEAT

NOTE: ALL LADDERS ARE OF FRP (FIBERGLASS) TYPE AND OSHA COMPLIANT

PLOT DATE = 3/22/2010
FILE NAME = D:\88226\dn\s-9-88.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

ILLINOIS DEPARTMENT OF TRANSPORTATION

SECTIONS & DETAILS

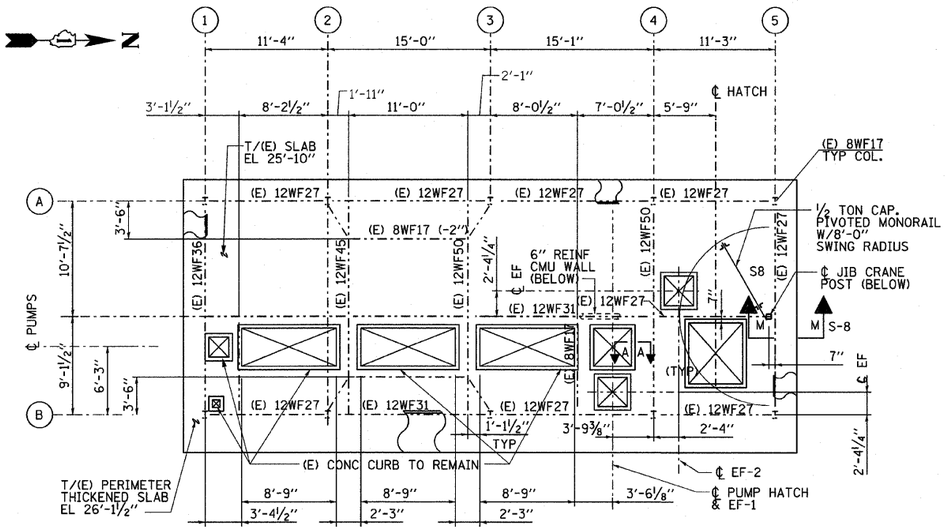
SCALE: VERT. NO SCALE
HORIZ.
DATE: 3/23/2010

DRAWN BY: A.T.
CHECKED BY: A.N.

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	28
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

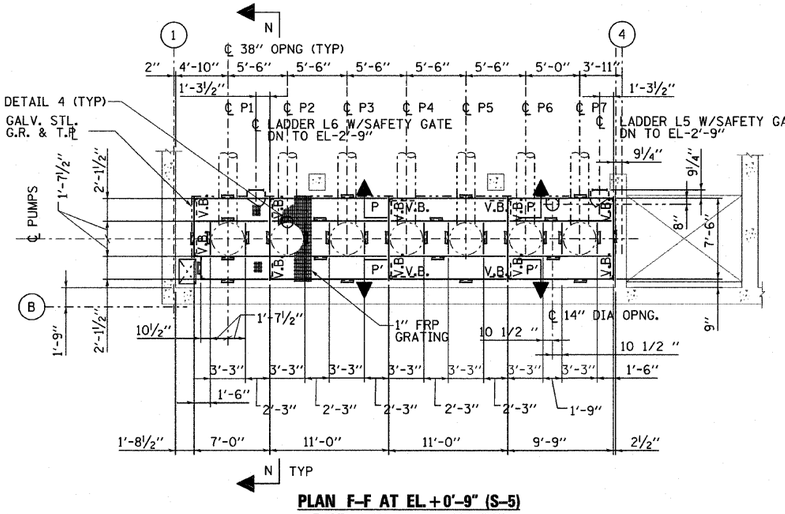
D-91-411-99



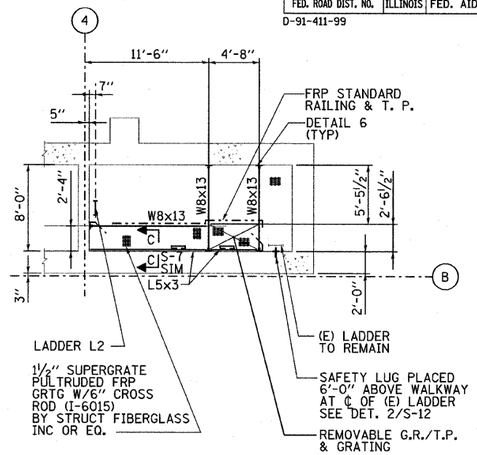
1. FOR ROOF OPENING SIZES & LOCATIONS SEE S-11

ROOF PLAN E–E AT EL.+25'-4" T/STL U.N. (S–5)
L.L. = 30 PSF

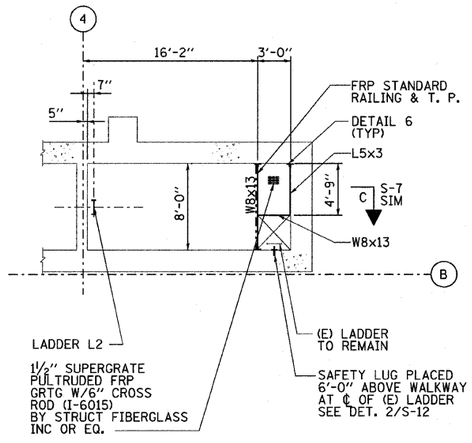
SEE ARCH DWGS FOR HATCH COVERS



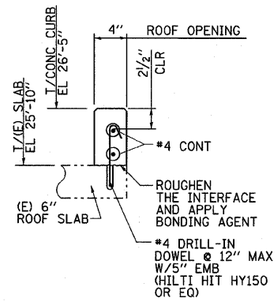
PLAN F–F AT EL.+0'-9" (S–5)
T/STL (-1") L.L. = 100 PSF
ALL FRAMING MEMBERS C8x11.5 U.N.
ALL LEG POST L4x4x⅜



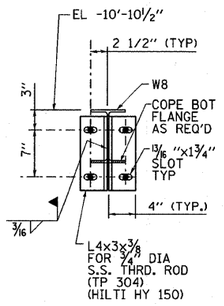
PLAN F–F AT EL.–8'-1¼" (S–5)
T/STL (-1½")



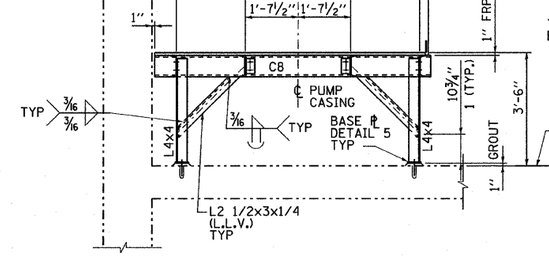
PLAN G–G AT EL.–15'-9" (S–5)
T/STL (-1½")



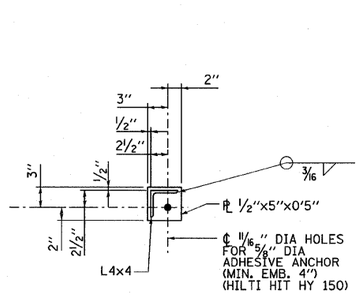
SECTION A–A



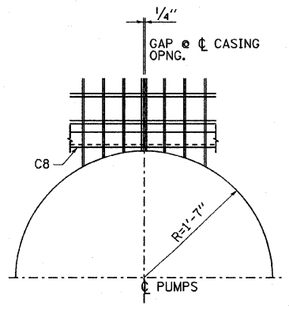
DETAIL 6



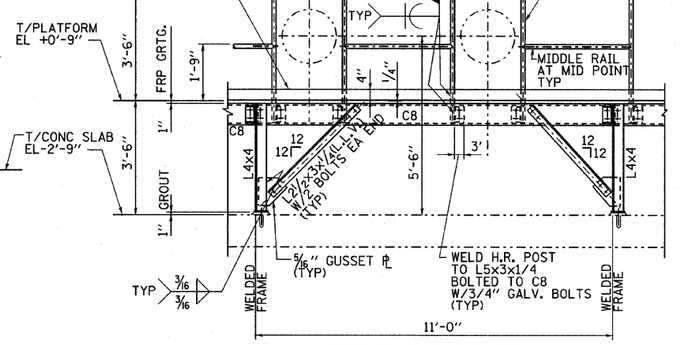
SECTION N–N



DETAIL 5
(11 PLACES)



DETAIL 4



WELDED FRAME SPACING (SEE PLAN)

SECTION P–P (WITH HANDRAIL)
SECTION P'–P' (WITHOUT HANDRAIL)

GENERAL NOTES:

1. FOR STRUCTURAL GENERAL NOTES SEE DWG. S-1 AND S-2.
2. ALL WORK ON THIS DRAWING SHALL FALL UNDER PAY ITEM "PUMP STATION GENERAL WORK".

REVISIONS NAME	DATE

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60193-2804
www.stanleygroup.com
Illinois Firm Registration No. 184-00633

ILLINOIS DEPARTMENT OF TRANSPORTATION

ROOF HOIST BEAM & SERVICE PLATFORM PLANS, SECTIONS & DETAILS

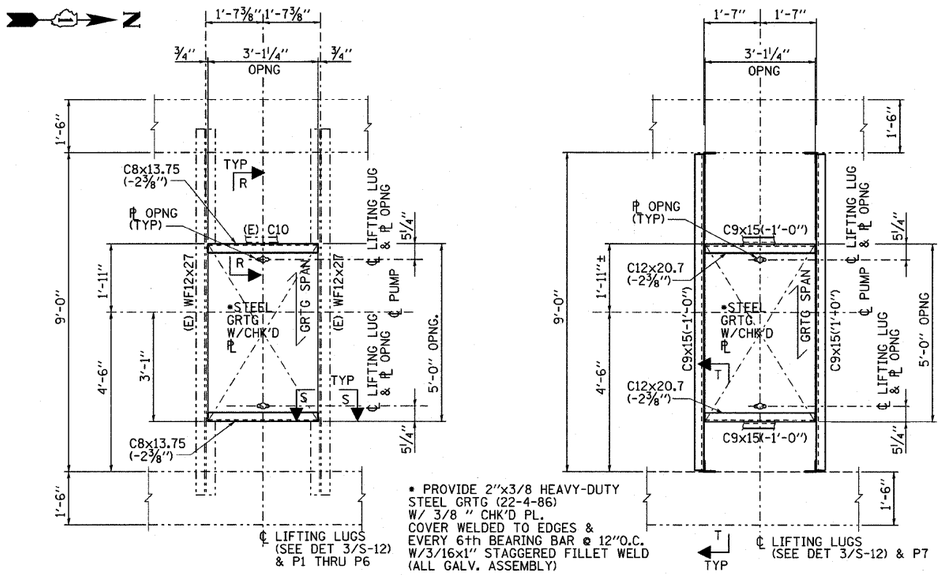
SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010
DRAWN BY: A.T.
CHECKED BY: A.N.

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-sht-S-RPL.dgn
PLOT SCALE = 1.0
USER NAME = #USER#

CONTRACT NO. 60828

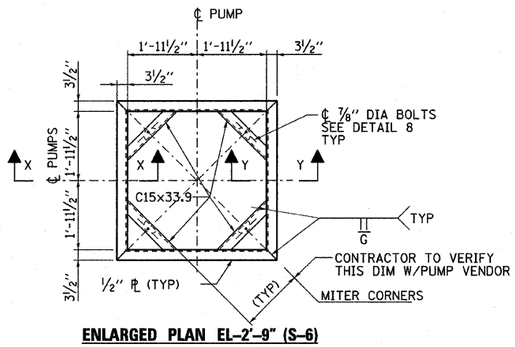
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	29
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99

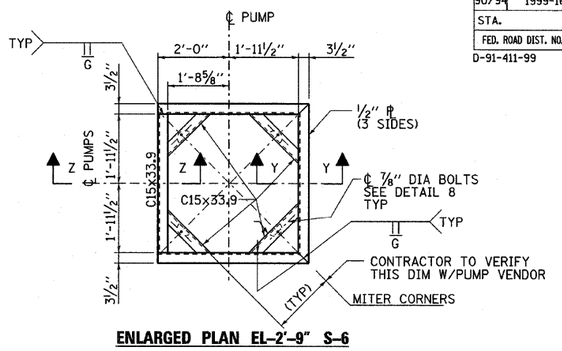


ENLARGED PLAN EL+15'-3" (S-6)
FLOOR CLOSURE P 1 THRU P6

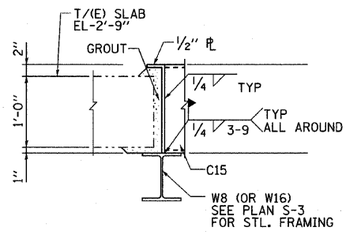
ENLARGED PLAN EL+15'-3" (S-6)
FLOOR CLOSURE P7



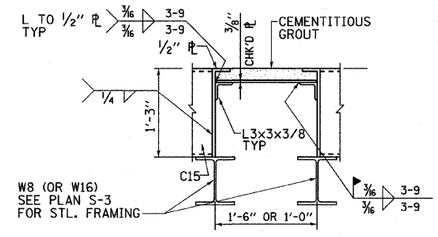
ENLARGED PLAN EL-2'-9" (S-6)
CASING SUPPORT P1, P4 (AS SHOWN)
& P7 (OPP. HAND)



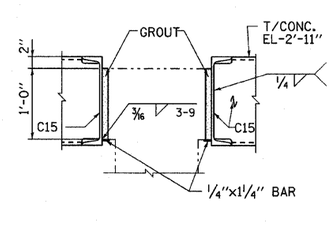
ENLARGED PLAN EL-2'-9" S-6
CASING SUPPORT P3 & P6 (AS SHOWN)
CASING SUPPORT P2 & P5 (OPP. HAND)



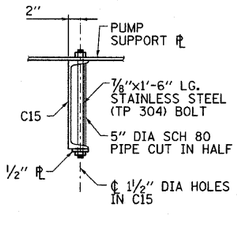
SECTION X-X



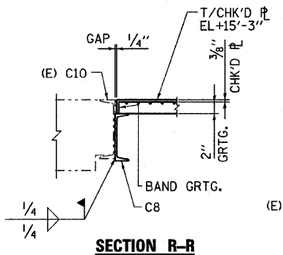
SECTION Y-Y



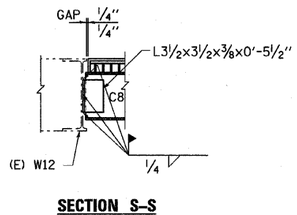
SECTION Z-Z



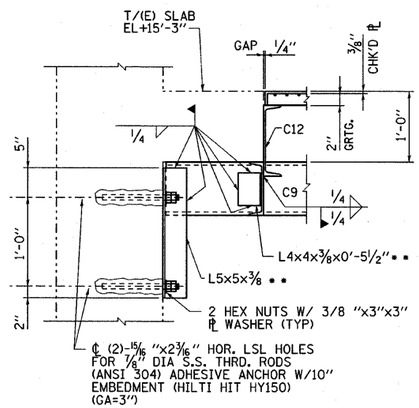
DETAIL 8



SECTION R-R

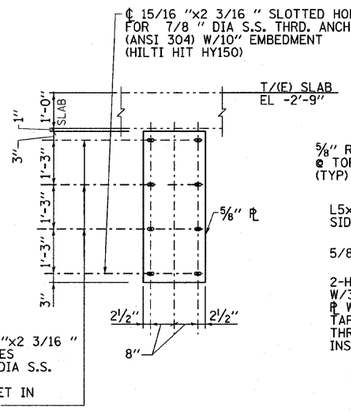


SECTION S-S

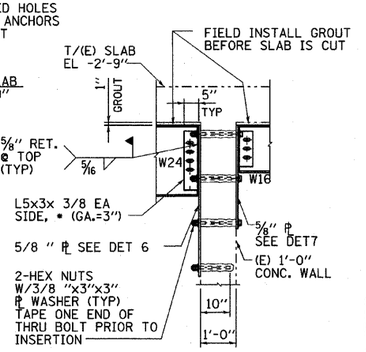


SECTION T-T

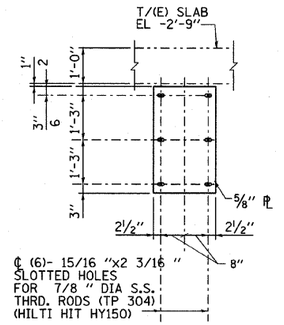
• • PROVIDE HORIZ. SLOTTED HLS. & ERECTION BOLTS AS REQ'D



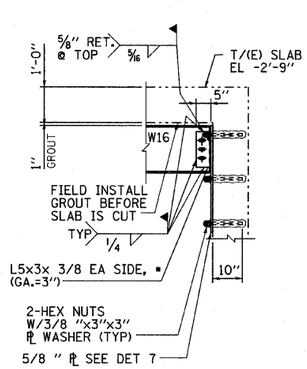
ANCHOR PLATE
DETAIL 6
(4 PLACES)



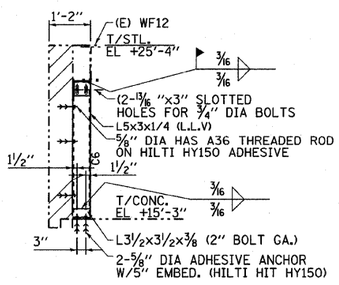
SECTION V-V
(4 PLACES, S-6)
• PROVIDE 13/16 "x1 3/4" SLOTTED HLS IN L's FOR A325SC BOLTS



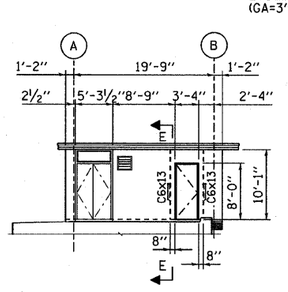
ANCHOR PLATE
DETAIL 7
(8 PLACES)



SECTION W-W
(4 PLACES, S-6)



SECTION E-E (S-6)



SOUTH ELEVATION - SECTION C (S-6)

GENERAL NOTES:

1. FOR STRUCTURAL GENERAL NOTES SEE DWG. S-1 AND S-2.
2. ALL WORK ON THIS DRAWING SHALL FALL UNDER PAY ITEM "PUMP STATION GENERAL WORK".

REVISIONS	
NAME	DATE

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60193-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

ILLINOIS DEPARTMENT OF TRANSPORTATION

FLOOR OPENING CLOSURES & CASING SUPPORT DETAILS

SCALE: VERT. NO SCALE
HORIZ.
DATE: 3/23/2010

DRAWN BY: A.T.
CHECKED BY: A.N.

PLOT DATE = 3/22/2010
FILE NAME = D:\08825-sht-S-10.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

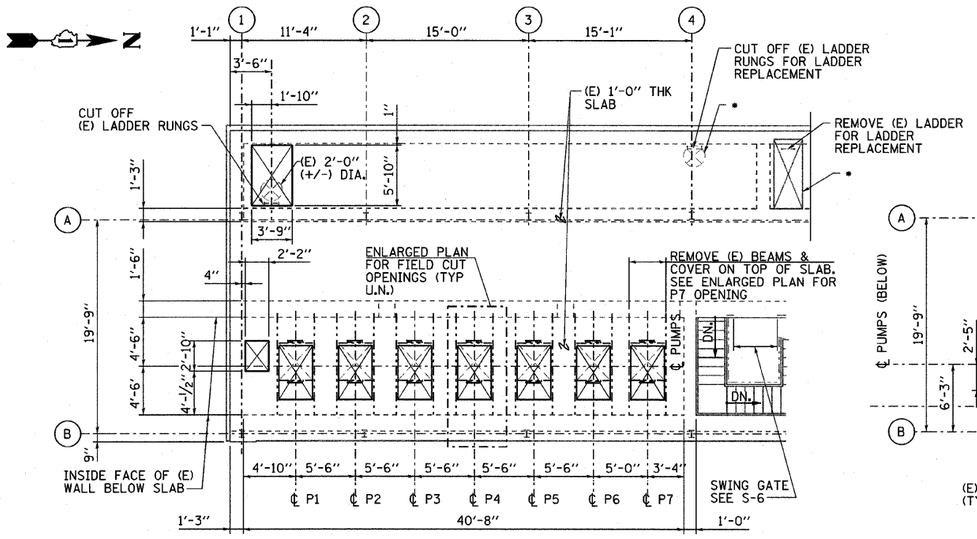
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	30
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

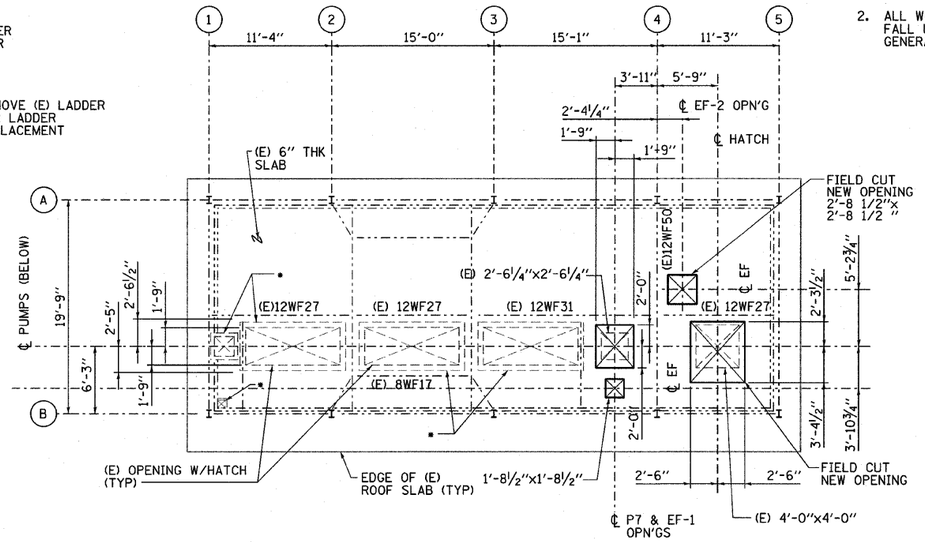
D-91-411-99

GENERAL NOTES:

1. FOR STRUCTURAL GENERAL NOTES SEE DWG. S-1 AND S-2.
2. ALL WORK ON THIS DRAWING SHALL FALL UNDER PAY ITEM "PUMP STATION GENERAL WORK".

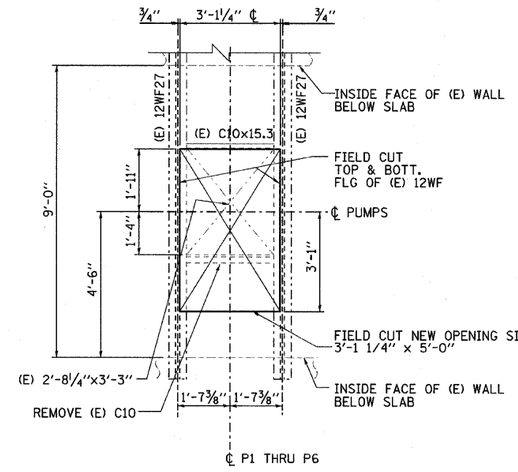


SLAB OPENING(S) MODIFICATION PLAN AT EL.+15'-3" T/CONC AND STEEL

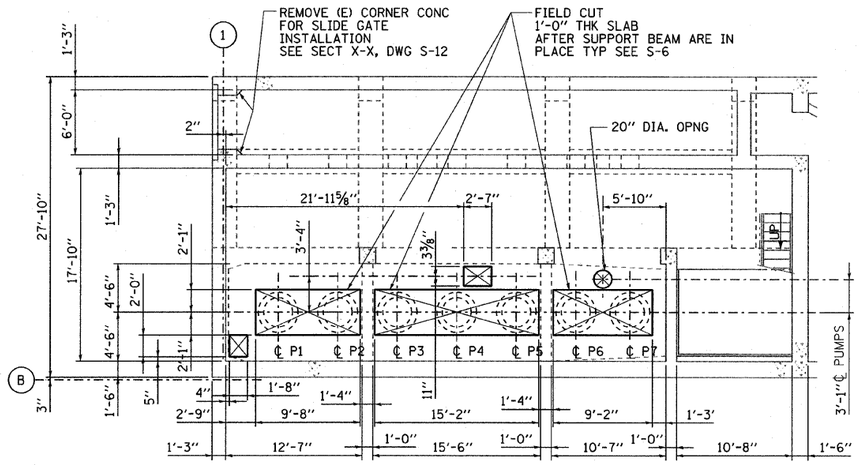


SLAB OPENING(S) MODIFICATION PLAN AT EL.+25'-4" T/STEEL

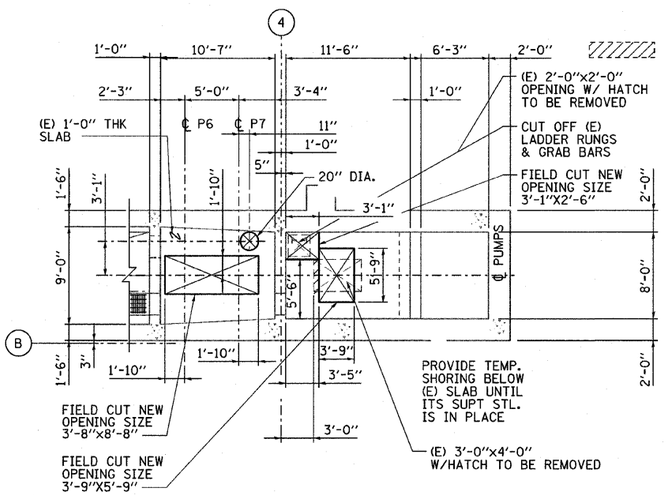
(SQUARE OPNG'S ARE SYM. ABOUT ℄)
VERIFY EF-1 & EF-2 OPENING SIZES WITH AS PURCHASED MECH. EQUIPMENT



ENLARGED PLAN AT EL.+15'-3" P1 THRU P6

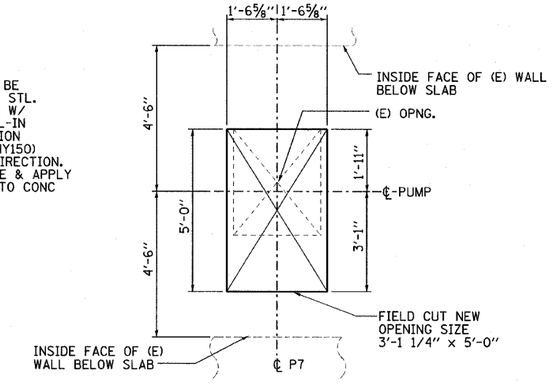


SLAB OPENING(S) MODIFICATION PLAN AT EL.-2'-9" T/CONC FLOOR



DENOTES NEW SLAB TO BE SUPPORTED BY STRUCT. STL. BELOW AND REINFORCED W/ #5 @ 12" T. & B. DRILL-IN DOWELS IN N.S. DIRECTION (6" EMBED. HILTI HIT HY150) &1-#5 T & B IN E/W DIRECTION. ROUGHEN THE INTERFACE & APPLY BONDING AGENT PRIOR TO CONC PLACEMENT

SLAB OPENING(S) MODIFICATION PLAN AT EL.-20'-9"



ENLARGED PLAN AT EL.+15'-3" P7

SYMBOL:

⊠ OR ⊗ DENOTES (E) OPENING WITH OR WITHOUT HATCH

⊠ OR ⊗ DENOTES NEW FIELD CUT OPENING

• DENOTES (E) OPENING WITH OR WITHOUT CURB TO REMAIN AS IS

PLOT DATE = 3/22/2010
FILE NAME = I:\080826-str-S-11.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

REVISIONS NAME	DATE

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60633-2801
www.stanleygroup.com
Illinois Firm Registration No: 184-000533

ILLINOIS DEPARTMENT OF TRANSPORTATION

STRUCTURAL OPENING MODIFICATION PLANS EXISTING ROOF & FLOOR SLABS

SCALE: VERT. NO SCALE
HORIZ.
DATE: 3/23/2010

DRAWN BY: A.T.
CHECKED BY: A.N.

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	31
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

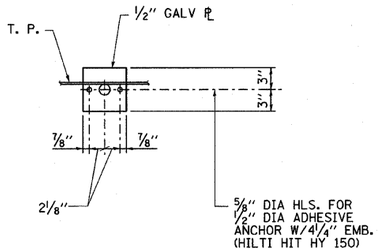
D-91-411-99

NOTE:

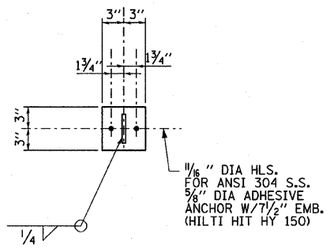
ALL (E) STL. PER ASTM AT SPEC.

GENERAL NOTES:

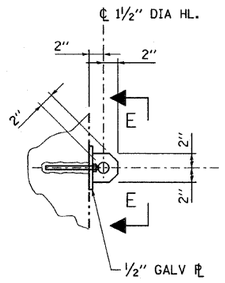
1. FOR STRUCTURAL GENERAL NOTES SEE DWG. S-1 AND S-2.
2. ALL WORK ON THIS DRAWING SHALL FALL UNDER PAY ITEM "PUMP STATION GENERAL WORK".



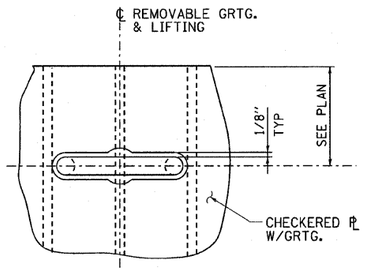
SECTION D–D



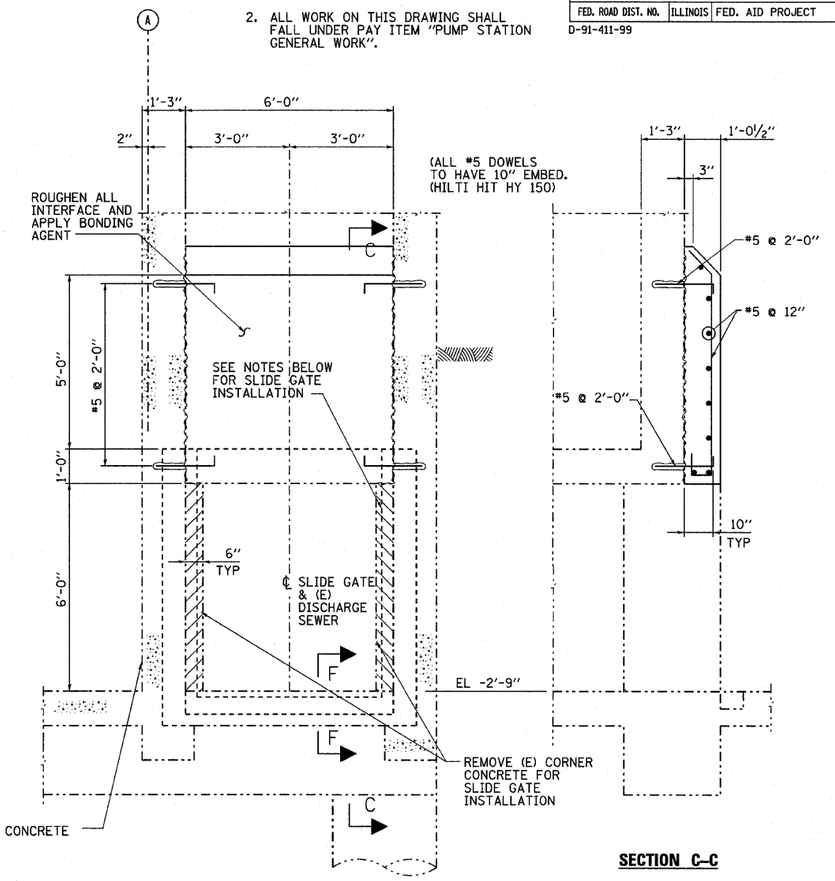
SECTION E–E



DETAIL 2
LIFELINE SAFETY LUG
S-7, S-9

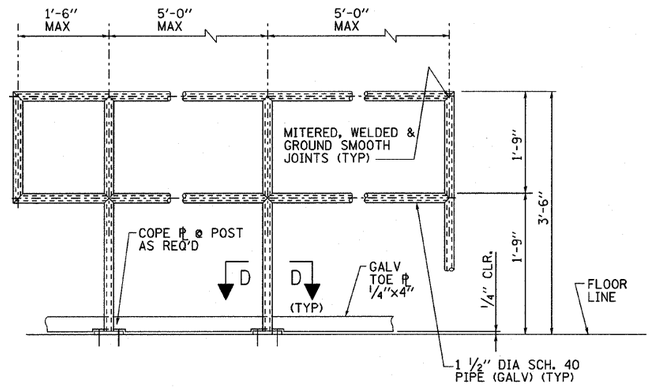


SECTION G–G



SECTION C–C

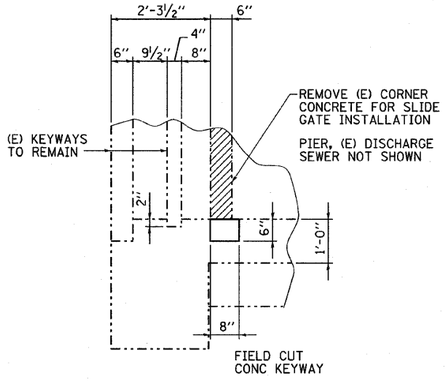
SECTION X–X (S–6)



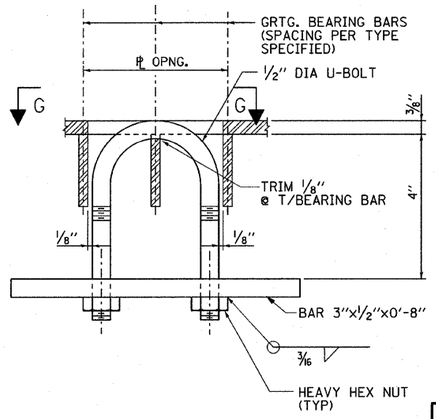
TYPICAL FLOOR MOUNTING HANDRAIL ELEVATION

NOTE:

THE EXISTING FLOOR & WALKWAY RAILING (TOP RAIL & MIDDLE RAIL LOCATED 3'-0" & 1'-6" ABOVE FLOOR, RESPECTIVELY) DOES NOT MEET OSHA REQUIREMENT AND SHALL BE REPLACED BY RAILING AS SHOWN.



SECTION F–F



COLLAPSABLE LIFTING LUG DETAIL 3

NOTES:

1. CONTRACTOR SHALL FIELD MEASURE THE DIAMETER OF SLIDE GATE MOUNTING BOLT HOLES.
2. PROVIDE ANSI 304 S.S. THREAD RODS ASSEMBLY W/6" EMB. PER HILTI HIT HY 150 FOR CONCRETE ANCHORS AND ANSI 304 S.S. BOLTS FOR CHANNEL CONNECTIONS.
3. FIELD DRILL THREAD RODS/BOLTS DIAMETER = MEASURED BOLT HOLE DIAMETER -1/16 ".
4. PATCH UP THE (E) BASE/SIDE SLOTS W/CONCRETE AS REQ'D (I.E. ROUGHEN THE (E) SURFACE AND APPLY BONDING AGENT PRIOR TO PLACEMENT OF CONCRETE).

REVISIONS	
NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-000533

ILLINOIS DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS STEEL SECTIONS & DETAILS

SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010
DRAWN BY: A.T.
CHECKED BY: A.N.

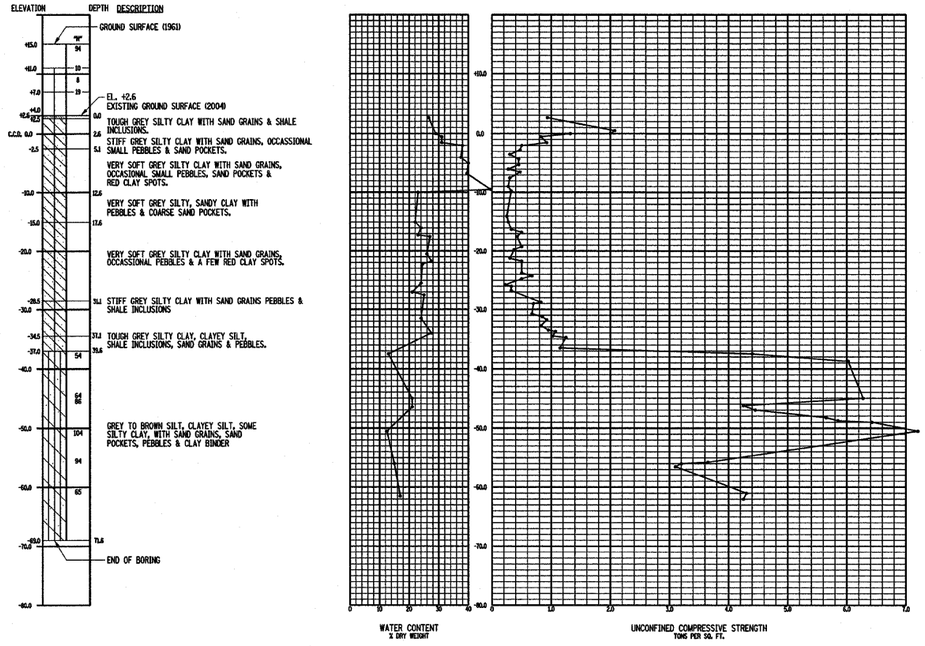
PLOT DATE = 3/22/2010
FILE NAME = D:\60828-anl-s-12.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

S–12

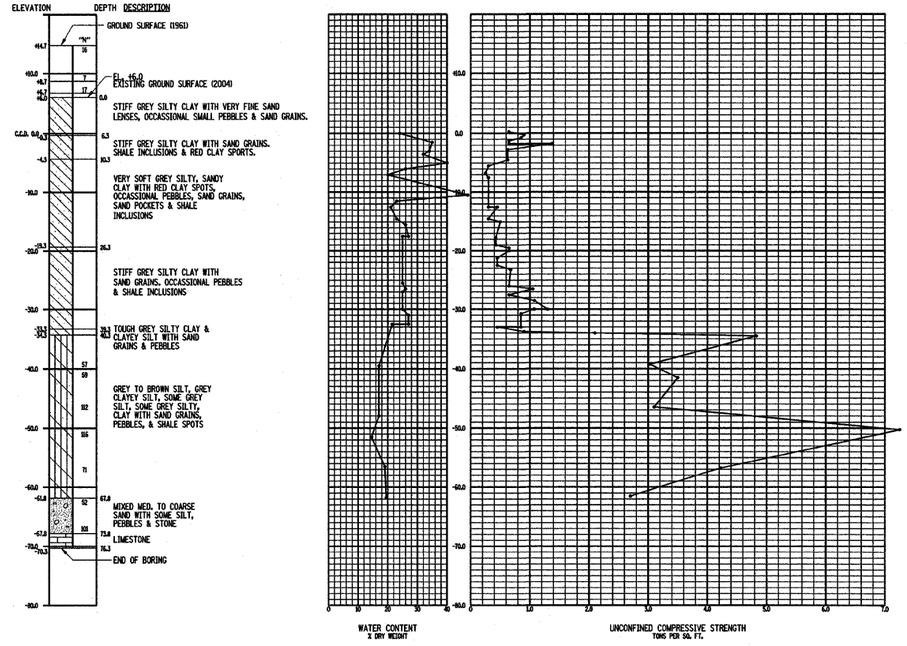
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	32
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

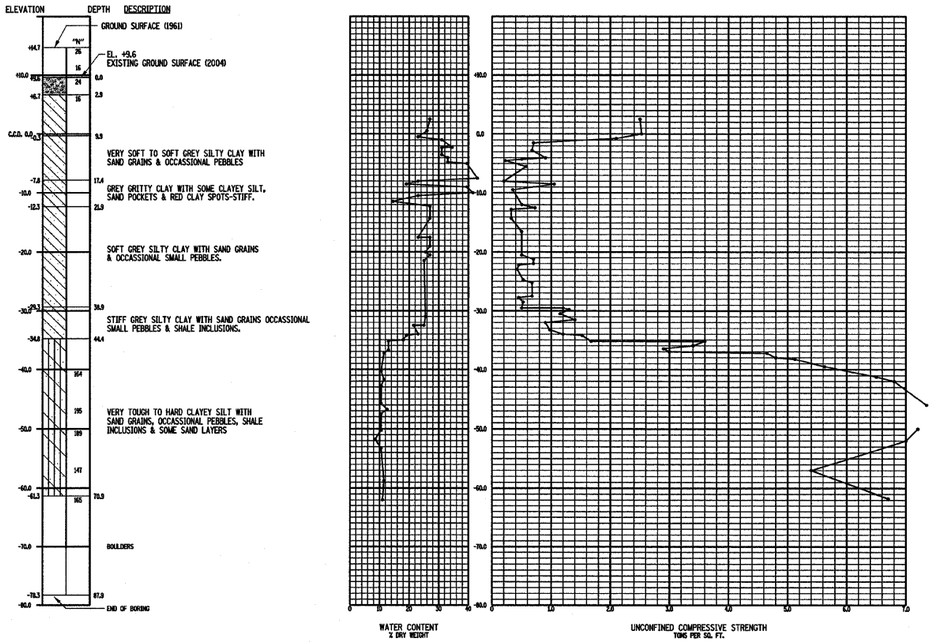
D-91-411-99



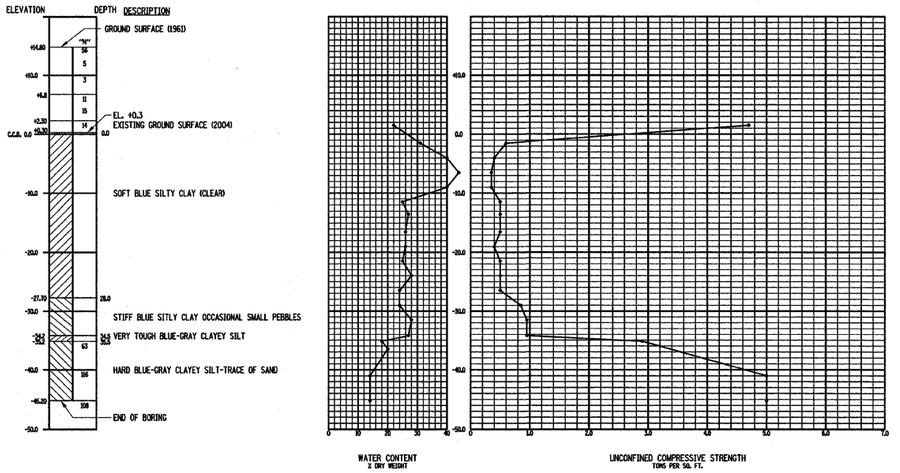
SOIL BORING NO. AB–9



SOIL BORING NO. AB–10



SOIL BORING NO. B–17



SOIL BORING NO. S–12

REMARKS: "N" NUMBER OF BLOWS OF 140# wt. FALLING 30" TO PENETRATE 12"

⊙ TEST VALUES

△ REMOLDED STRENGTH VALUES

W/L WATER LEVEL - 24HR PERIOD

SEE SHT. G-3 FOR LOCATIONS

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-006533

ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORINGS

SCALE: VERT. NO SCALE HORIZ.

DATE: 3/23/2010

DRAWN BY: A.T.

CHECKED BY: A.N.

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-sht-S-13.dgn
PLOT SCALE = 1.0000 '/ IN.
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	33
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99

GENERAL NOTES

1. ALL SYMBOLS AND ABBREVIATIONS SHOWN ON THIS LEGEND MAY NOT APPEAR ON THIS SET OF DRAWINGS.
2. ARE GENERALLY DIAGRAMMATIC. ROUTING OF PIPING, DUCTWORK, CONDUITS, RACEWAYS, ETC. AS SHOWN ON DRAWINGS, DOES NOT INTEND TO SHOW EVERY RISE, DROP, OFFSET, FITTING NOR EVERY STRUCTURAL ELEMENT THAT MAY BE ENCOUNTERED DURING THE INSTALLATION OF THIS WORK. EACH CONTRACTOR SHALL MAKE ANY REQUIRED CHANGES FROM THE GENERAL ROUTING SHOWN ON THESE DRAWINGS, SUCH AS OFFSETS, BENDS OR CHANGES IN ELEVATION DUE TO COORDINATION WITH THE WORK OF OTHER TRADES AND BUILDING CONSTRUCTION. ALL CHANGES SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER OR DELAY IN COMPLETION DATE OF THE PROJECT.
3. WHERE THERE IS EVIDENCE THAT WORK OF ONE TRADE WILL INTERFERE WITH WORK OF OTHER TRADES, ALL TRADES SHALL MEET ON JOB SITE TO WORK OUT SPACE CONDITIONS AND MAKE SATISFACTORY ADJUSTMENTS TO INSTALLATION OF THE NEW WORK. VERIFY EXACT LOCATIONS OF ALL DEVICES AND EQUIPMENT WITH FIELD CONDITIONS, SHOP DRAWINGS, AND WORK OF OTHER TRADES PRIOR TO ROUGH-IN. TRADES SHALL BE RESPONSIBLE, AT THEIR OWN EXPENSE, FOR THE REMOVAL AND REINSTALLATION OF ANY PART OF THEIR WORK IF SAME WAS INSTALLED WITHOUT CONSULTING WITH OTHER TRADES BEFORE INSTALLING THEIR WORK.
4. PROVIDE SLEEVES FOR OPENINGS IN BEAMS, FLOORS, COLUMNS AND WALLS AS SHOWN ON THE DRAWINGS, AS REQUIRED BY JOB SITE CONDITIONS, AND/OR AS SPECIFIED, WHEN INSTALLING THEIR WORK. ALL BEAMS AND COLUMNS WHICH ARE REQUIRED TO BE SLEEVED SHALL BE CUT AND REINFORCED AS REQUIRED BY FIELD CONDITIONS AND LOCATIONS AND SIZES SHALL BE CHECKED AND APPROVED BY ENGINEER BEFORE CONTRACTOR CUTS ANY STRUCTURAL BUILDING MEMBER.
5. THE SEQUENCE FOR THE INSTALLATION OF ALL WORK SHALL BE COORDINATED BETWEEN TRADES. THE PROJECT AND IN STRICT ACCORDANCE WITH ARCHITECT/ ENGINEER AND OWNERS STIPULATION AS CALLED FOR IN THE SPECIFICATION AND/OR AS DIRECTED.
6. CONTRACTOR SHALL BE RESPONSIBLE AND PAY FOR ALL CORING, CUTTING, PATCHING, REPAIRING, REFINISHING AND REMOVAL/REPLACEMENT OF NEW OR EXISTING BUILDING CONSTRUCTION REQUIRED TO ACCOMMODATE THE INSTALLATION OR REMOVAL OF THEIR WORK. ALL PATCHING, REPAIRING AND REFINISHING WORK SHALL BE PERFORMED BY THOSE REGULARLY INVOLVED IN THAT TRADE AND SHALL MATCH THE ADJACENT CONSTRUCTION AS CLOSELY AS POSSIBLE. CARE SHALL BE TAKEN SO AS NOT TO DAMAGE ANY EXISTING BUILDING CONSTRUCTION OR ITEMS THAT ARE TO REMAIN. ANY EXISTING FINISHES THAT ARE DAMAGED DURING THE INSTALLATION OF NEW WORK OR REMOVAL OF EXISTING WORK SHALL BE REPAIRED, REPLACED AND PAID FOR BY THE INSTALLING CONTRACTOR, TO THE SATISFACTION OF THE ENGINEER AND OWNER. REFER TO DRAWINGS FOR EXISTING BUILDING CONSTRUCTION THAT IS TO REMAIN AND, THEREFORE, SUBJECT TO PATCHING, REPAIRING, REFINISHING, AND REMOVAL/REPLACEMENT.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR OWN CLEAN-UP DURING CONSTRUCTION. IF CONTRACTOR FAILS TO PROVIDE SUCH CLEAN-UP, THE ARCHITECT/ENGINEER WILL DIRECT ANOTHER CONTRACTOR TO PERFORM THE CLEAN-UP AND THE NEGLIGENT CONTRACTOR SHALL PAY THE ASSOCIATED BACK-CHARGES AS DEEMED APPROPRIATE BY THE ARCHITECT/ ENGINEER.
8. CONTRACTOR SHALL STORE ALL MATERIALS AND EQUIPMENT SHIPPED TO THE SITE IN A PROTECTED AREA. IF MATERIAL IS STORED OUTSIDE OF THE BUILDING, IT MUST BE STORED OFF THE GROUND A MINIMUM OF SIX INCHES (6") SET ON 6 X 6 PLANKS AND/OR WOOD PALLETS. ALL MATERIAL AND EQUIPMENT MUST BE COMPLETELY COVERED WITH WATERPROOF TARPS OR VISQUIN. ALL PIPING AND DUCTWORK WILL HAVE THE ENDS CLOSED TO KEEP OUT DIRT AND OTHER DEBRIS. NO EQUIPMENT WILL BE ALLOWED TO BE STORED ON THE SITE UNLESS IT IS SITTING ON WOOD PLANKS AND COMPLETELY PROTECTED WITH WEATHERPROOF COVERS.
9. THE DRAWINGS, SCHEDULES AND SPECIFICATIONS HAVE BEEN PREPARED USING ONE MANUFACTURER FOR EACH PIECE OF EQUIPMENT AS THE BASIS FOR DIMENSIONAL DESIGN. IF THE CONTRACTOR PURCHASES EQUIPMENT LISTED AS A SPECIFIED ACCEPTABLE MANUFACTURER BUT IS NOT THE SCHEDULED MANUFACTURER USED FOR THE BASE DESIGN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL THE DIMENSIONS OF THE EQUIPMENT TO VERIFY THAT IT WILL FIT IN THE SPACE SHOWN ON THE DRAWINGS. MINOR DEVIATIONS IN DIMENSIONS WILL BE PERMITTED, PROVIDED THE RATINGS MEET THOSE SHOWN ON THE DRAWINGS AND EQUIPMENT WILL PHYSICALLY FIT INTO THE SPACE ALLOCATED WITH SUITABLE ACCESS AROUND EQUIPMENT FOR OPERATION AND MAINTENANCE ON THE EQUIPMENT.
10. CONTRACTOR SHALL VERIFY THAT THE CHARACTERISTICS OF THE EQUIPMENT SUBMITTED FOR REVIEW MEETS THE CAPACITY AND DUTY SPECIFIED.
11. WHEN EQUIPMENT IS SUBMITTED FOR REVIEW AND DOES NOT MEET THE PHYSICAL SIZE OR ARRANGEMENT OF THAT SCHEDULED AND SPECIFIED, CONTRACTOR SHALL PAY FOR ALL ALTERATIONS REQUIRED TO ACCOMMODATE SUCH EQUIPMENT AT NO ADDITIONAL COST TO OWNER. CONTRACTOR WILL ALSO PAY ALL COSTS FOR ADDITIONAL WORK REQUIRED BY OTHER CONTRACTORS, OWNER, ARCHITECT OR ENGINEER TO MAKE CHANGES WHICH WOULD ALLOW THE EQUIPMENT TO FIT IN THE SPACE AND FUNCTION AS INTENDED.
12. CONTRACTOR SHALL FIELD VERIFY THE SIZE OF EXISTING OPENINGS, WINDOWS, DOORS, CORRIDORS, ROOMS, ETC. FOR ACCESS OF THE NEW EQUIPMENT INTO OR REMOVAL OF EXISTING EQUIPMENT FROM THE BUILDING. IF OPENINGS ARE TOO SMALL FOR ACCESS THEN CONTRACTOR SHALL, AT HIS OWN EXPENSE, PROVIDE NEW OR ENLARGED OPENINGS AND RESTORE SAME TO ORIGINAL SIZE AND CONDITION. CONTRACTOR MAY ELECT TO ORDER THE EQUIPMENT DISASSEMBLED AND/OR WITH SPLIT HOUSING FOR ENTRANCE INTO THE EXISTING SPACE OR BUILDING. CONTRACTOR SHALL REASSEMBLE EQUIPMENT AFTER IT IS IN THE SPACE AT HIS OWN EXPENSE.
13. ALL PIPING SHALL BE SUSPENDED WITH CLEVIS AND/OR TRAPEZE PIPE HANGERS. INSULATED PIPING SHALL REST ON STEEL OR WOOD (CHILLED WATER PIPING) PIPE COVERING PROTECTION SADDLES OR SHEET METAL INSULATION SHIELDS AS CALLED FOR IN THE SPECIFICATIONS AND/OR DETAILED ON THE DRAWINGS.
14. ALL PIPING PENETRATIONS THRU FLOORS SHALL HAVE A SCHEDULE 40 STEEL PIPE SLEEVE INSTALLED AROUND PIPE ONLY. ALL PIPE PENETRATIONS THRU WALLS SHALL HAVE A GALVANIZED SHEET METAL OR SCHEDULE 40 STEEL PIPE SLEEVE INSTALLED AROUND THE PIPE AND PIPE INSULATION. ALL PENETRATIONS TO BE SEALED TO MAINTAIN FIRE-ROOF RATING AND INTEGRITY.
15. PITCH ALL SUPPLY AND RETURN WATER LINES TO DRAIN COMPLETELY THROUGH LOWER EQUIPMENT, UNIONS, OR DRAIN VALVES. INSTALL A 1/2" DRAIN VALVE WITH 3/4" HOSE THREAD OUTLET IN ALL MAIN PIPING RUNS WHICH WOULD NOT BE ABLE TO DRAIN THRU A LOWER PIECE OF EQUIPMENT.
16. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS.

TIE POINT DESIGNATORS

XXY ZZZ

TIE POINT TO EQUIPMENT OR ANOTHER CONTRACT
X = EQUIPMENT OR CONTRACT DESIGNATOR
YY = P&ID NUMBER
ZZZ= TIE POINT NUMBER

YYY-TPXX

TIE POINT INTO AN EXISTING SYSTEM
YYY = P&ID DRAWING NUMBER
XX = TIE POINT NUMBER

GENERAL

- NEW WORK
- EXISTING
- FUTURE
- XX — STREAM IDENTIFICATION
- FLOW ARROW
- PITCH DOWN IN DIRECTION OF FLOW

VALVES

NORMALLY OPEN	NORMALLY CLOSED	
		GATE
		BALL
		STOP CHECK
		BUTTERFLY
		DIAPHRAGM
		Y-STRAINER
		Y-STRAINER W/ DRAIN
		CAPPED Y-STRAINER W/ N.C. BALL VALVE
		BUCKET STRAINER
		SIMPLEX STRAINER
		DUPLEX STRAINER
		TEMPORARY STRAINER IN-LINE
		DRAIN
		SPRAY NOZZLE
		VENT THRU ROOF (PLAN)
		SWING CHECK
		WAFER CHECK
		FLOAT
		BALANCING
		BACKFLOW PREVENTER
		GAGE COCK

PLUMBING LINE TYPES

CW	COLD WATER
HW	HOT WATER
FW	FIRE SPRINKLER WATER

PIPE AND FITTINGS

- FLANGED JOINT
- MECHANICAL JOINT
- PUSH-ON JOINT
- WELDED JOINT
- GROOVED END MECHANICAL COUPLING
- SLEEVE TYPE MECHANICAL COUPLING
- RESTRAINED SLEEVE TYPE MECHANICAL COUPLING
- FLANGED COUPLING ADAPTER
- RESTRAINED FLANGED COUPLING ADAPTER
- EXPANSION JOINT

SCHEMATIC/FITTINGS AND VALVES

ALL FITTINGS AND VALVES MAYBE SHOWN AS INDICATED UNLESS STATED (PLAN) ONLY.

- VTR — VENT THRU ROOF
- SHOCK ABSORBER OR WATER HAMMER ARRESTOR
- TRAP (LAV, DRAIN, ECT.)
- SLOT DIFFUSER
- ROUND DUCT TURNING UP
- ROUND DUCT TURNING DOWN
- 12 ø — ROUND DUCT
- 12/12 — FLAT OVAL DUCT
- DIRECTION OF FLOW IN DUCT
- DOUBLE THICKNESS, AIRFOIL TURNING VANES IN ELBOW
- SQUARE ELBOW WITH TURNING VANES
- TEE WITH TURNING VANES
- CEILING DIFFUSER IDENTIFYING * THROWS
- 18 X 18 / 18 ø — SQUARE TO ROUND TRANSITION

M — CONTROL DAMPER SECTION

HVAC

- VOLUME DAMPER (MANUAL)
- FLEXIBLE DUCT CONNECTION
- D — INCLINED DROP IN ELEVATION OF DUCT WITH RESPECT TO AIR FLOW
- R — INCLINED RISE IN ELEVATION OF DUCT WITH RESPECT TO AIR FLOW
- M — MOTORIZED DAMPER-PARALLEL OR OPPOSED BLADE-PLAN VIEW
- REHEAT OR PREHEAT COIL IN DUCT
- HEATING COIL
- COOLING COIL
- ELECTRIC HEATING COIL
- FHS / FILTER — FILTER SECTION
- GRILLE REGISTER DIFFUSER
- BACKDRAFT DAMPER
- T / FRZ STAT — FREEZE TAT FC - FAIL CLOSE FO - FAIL OPEN FIP - FAIL IN PLACE
- AD — ACCESS DOOR IN DUCT SIDE OR BOTTOM
- RECTANGULAR RETURN DUCT TURNING DOWN
- RECTANGULAR RETURN DUCT TURNING UP
- RECTANGULAR SUPPLY DUCT TURNING DOWN
- RECTANGULAR SUPPLY DUCT TURNING UP
- RETURN OR EXHAUST DUCT TAP FROM BOTTOM OF DUCT
- RETURN, SUPPLY, OR EXHAUST BRANCH DUCT IN SIDE OF DUCT W/VOLUME DAMPER
- 18 X 14 — DUCT-(INSIDE CLEAR DIMENSIONS) FIRST FIGURE = SIDE SHOWN SECOND FIGURE = SIDE NOT SHOWN
- SPLITTER DAMPER
- VOLUME EXTRACTOR
- CD-1 350 CFM — SUPPLY OR VENTILATING DIFFUSER W/CFM AND FIXTURE TYPE SHOWN
- RG-1, EG-1 350 CFM — RETURN OR EXHAUST GRILLE W/CFM AND FIXTURE TYPE SHOWN
- EXHAUST FAN
- FAN
- INLINE EXHAUST FAN
- SUPPLY/VENTILATING AIR
- RETURN/EXHAUST AIR
- SD — SMOKE DAMPER
- DPS — DIFFERENTIAL PRESSURE SENSOR/SWITCH
- DPT — DIFFERENTIAL PRESSURE TRANSMITTER
- TAG# / CFM — EQUIPMENT TAG NUMBER / CFM VALUE
- X — FIRE DAMPER (NUMBER INDICATES FIRE RATING OTHER THAN 1 HOUR)
- SMOKE DAMPER
- X — FIRE & SMOKE DAMPER (NUMBER INDICATES FIRE RATING OTHER THAN 1 HOUR)
- UNIT HEATER
- H = HUMIDISTAT
- T = PNEUMATIC THERMOSTAT
- DIGITAL
- RS — REFRIGERANT SENSOR

O.A.	OUTSIDE AIR
S.A.	SUPPLY AIR
E.A.	EXHAUST AIR
R.A.	RETURN AIR
S.A. GR	SUPPLY AIR GRILLE
S.A. REG.	SUPPLY AIP REGISTER
S.A. DIF	SUPPLY AIP DIFFUSER

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-00533

ILLINOIS DEPARTMENT OF TRANSPORTATION

MECHANICAL SYMBOL LIST & NOTES

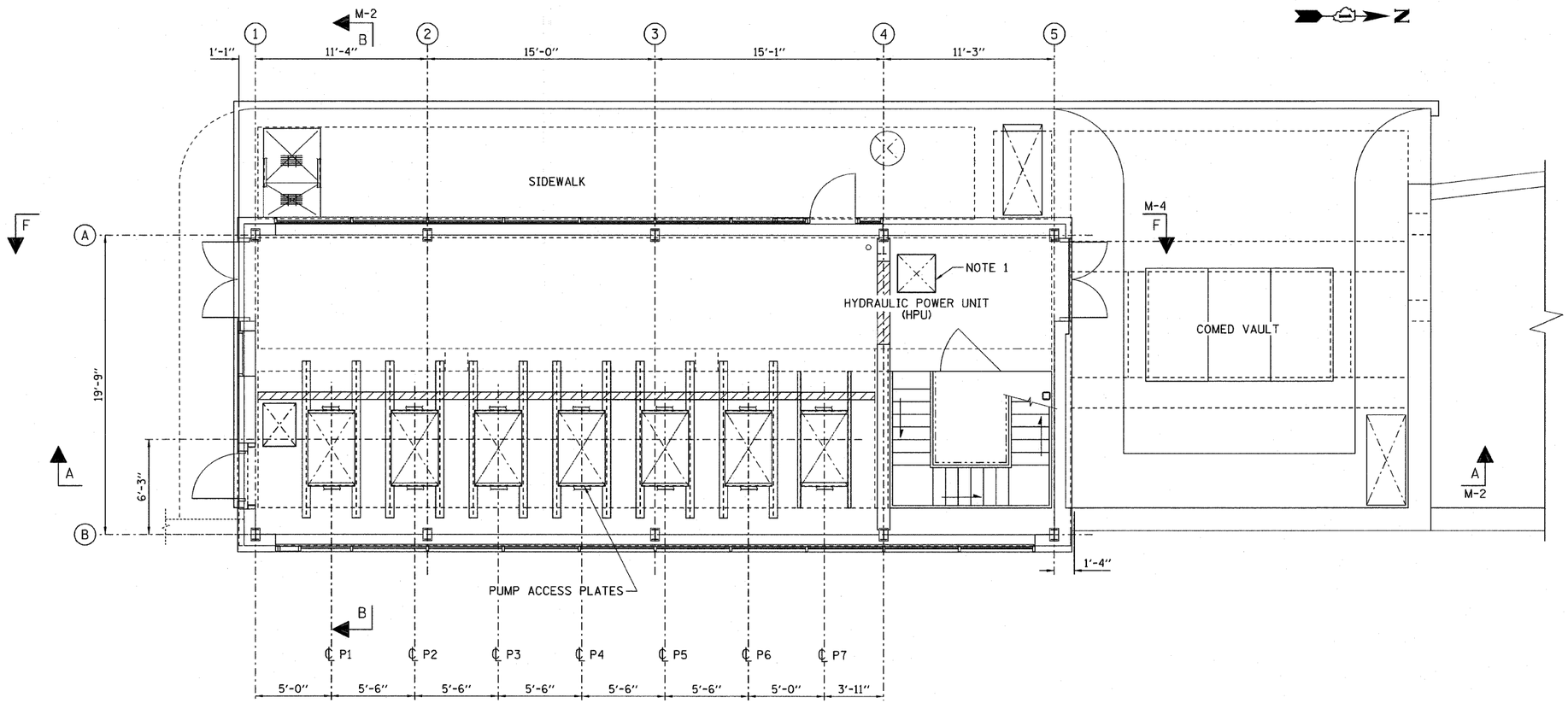
SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010
DRAWN BY: R.D
CHECKED BY: A.M.

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-sht-M-01.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	34
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



PLAN A-A AT EL +15'-3"

NOTES:

1. SEE SPECIFICATION SECTION 15F PARAGRAPH 2.2.2, DRIVE FOR THE REQUIREMENTS FOR THE HYDRAULIC POWER UNIT (HPU).

GENERAL NOTES:

1. ALL DIMENSIONS SHOWN SHALL BE VERIFIED IN THE FIELD, BY THE CONTRACTOR.
2. DEMOLITION AND CONSTRUCTION WORK SHALL BE SEQUENCED SUCH THAT THE PUMP STATION REMAINS OPERATIONAL. IF THE STATION MUST BE TAKEN OUT OF SERVICE, THE IDOT ENGINEER SHALL BE NOTIFIED AT LEAST (5) WORKING DAYS IN ADVANCE FOR APPROVAL.
3. THE LOCATION AND SIZE OF HATCH OPENINGS SHALL BE VERIFIED WITH MANUFACTURER'S APPROVED SHOP DRAWINGS, AND BE ADJUSTED AS REQUIRED.
4. ALL PIPE AND CONDUIT PENETRATIONS THROUGH WALLS AND SLABS TO CONTROL ROOM SHALL BE GROUTED GAS TIGHT.

4 3 2 1 0 4 8 — 1/4"= 1'-0"

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60633-2801
www.stanleygroup.com
Illinois Firm Registration No: 184-006533

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL ARRANGEMENT - PLAN

SCALE: VERT. 1/4"=1'-0"
HORIZ.
DATE: 3/23/2010

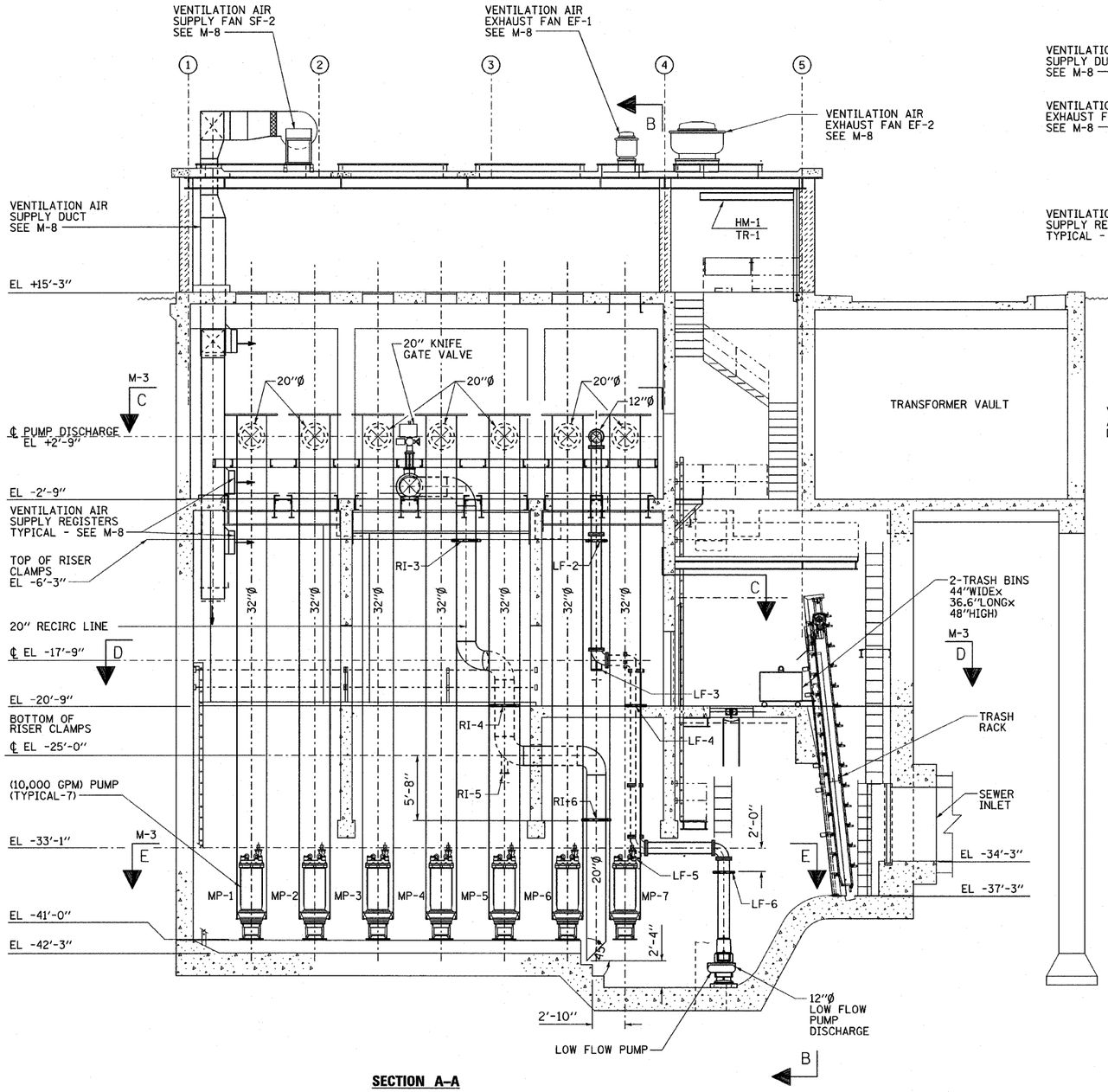
DRAWN BY: R.D
CHECKED BY: A.M.

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-sht-M-01A.dgn
PLOT SCALE = 1/4
USER NAME = #USER#

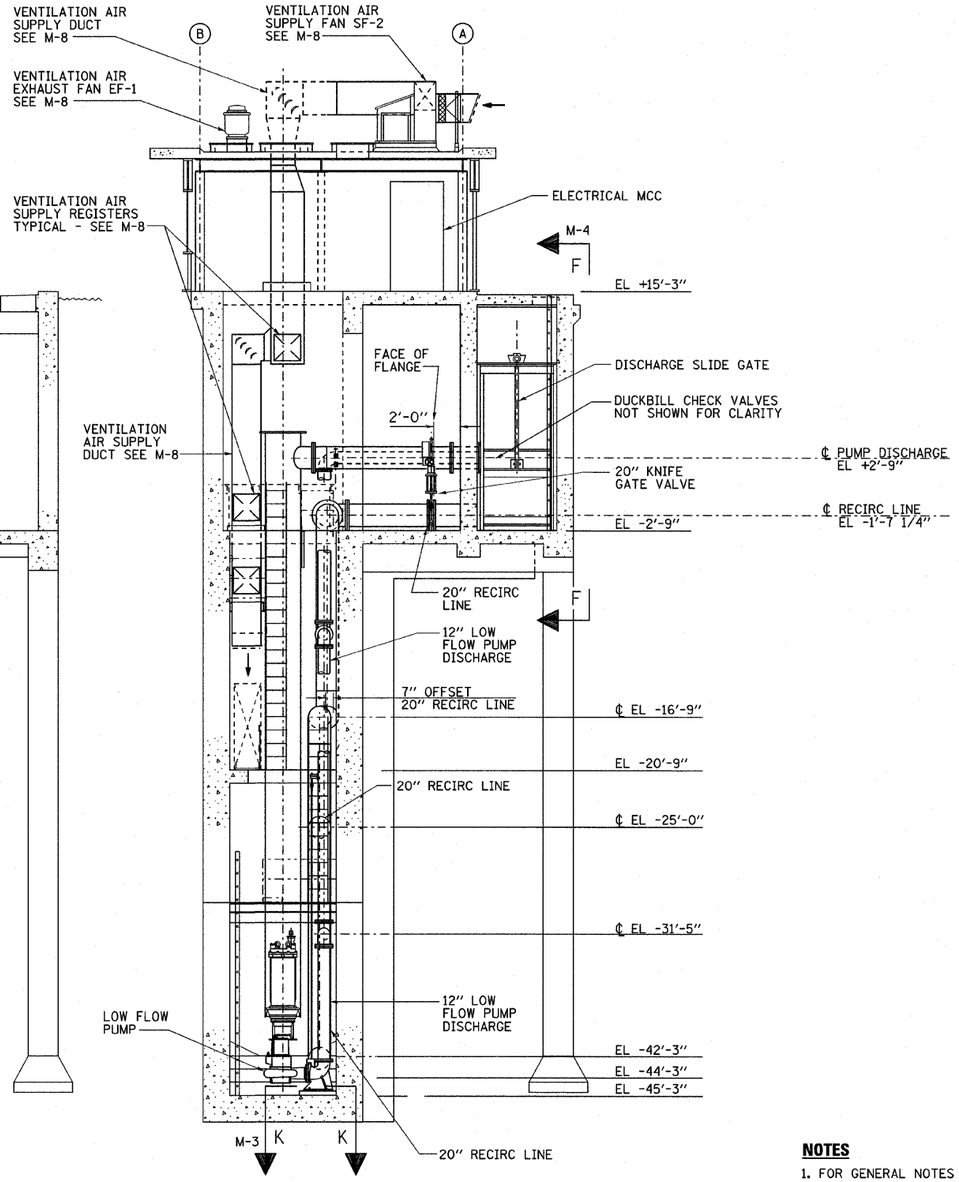
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	35
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



SECTION A–A
(DWG. M-1)
(LOOKING WEST)



SECTION B–B
(LOOKING SOUTH)

NOTES

1. FOR GENERAL NOTES SEE DWG. M-1.

4 3 2 1 0 4 8 — 3/16"= 1'-0"

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL ARRANGEMENT – PLANS & SECTIONS

SCALE: VERT. 3/16"=1'-0" HORIZ.
DATE: 3/23/2010

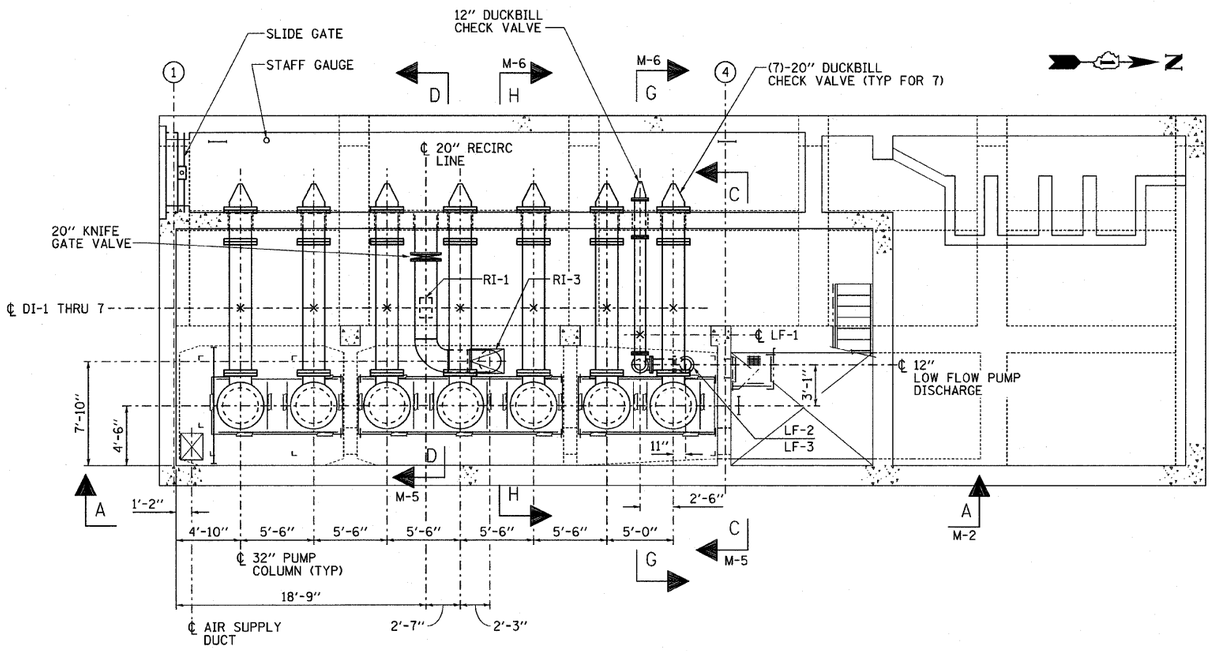
DRAWN BY: R.D
CHECKED BY: A.M.

PLOT DATE = 3/22/2010
FILE NAME = c:\projects\...\m-02.dgn
PLOT SCALE = 1.333333
USER NAME = #USER#

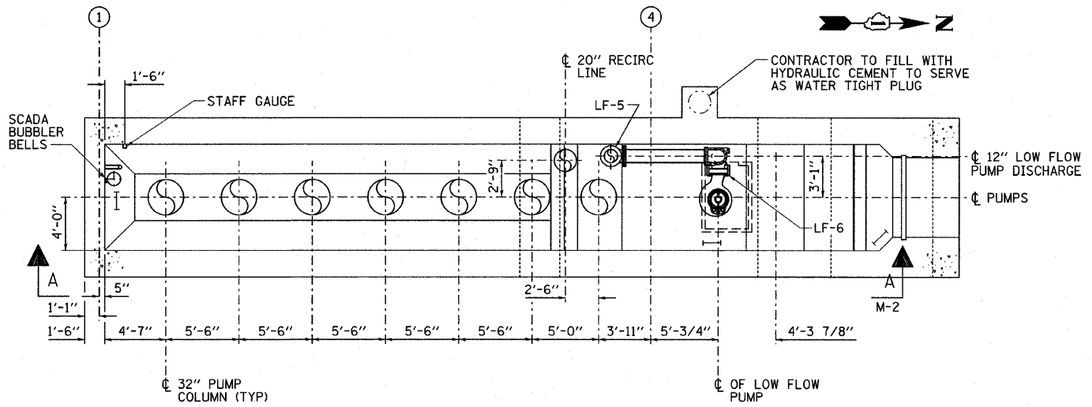
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	36
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

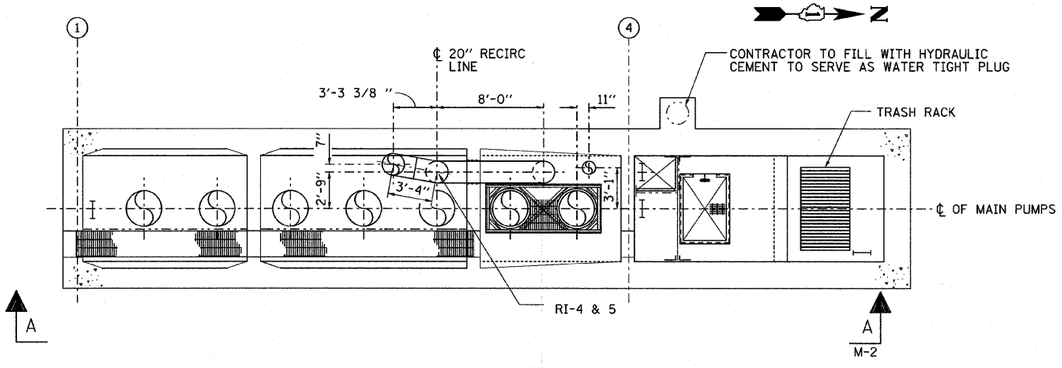
D-91-411-99



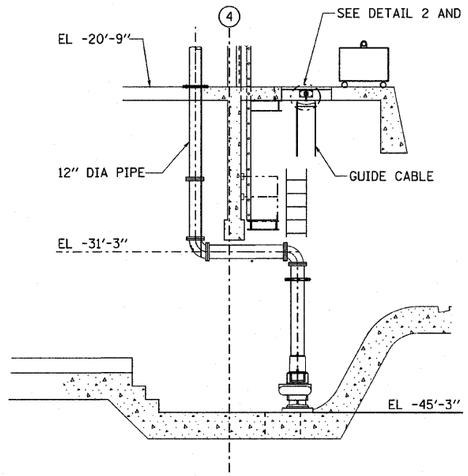
PLAN C–C
M-2



PLAN E–E
M-2



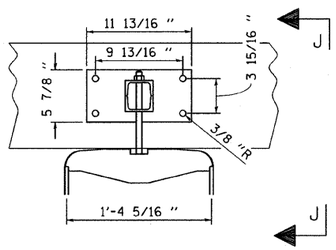
PLAN D–D
M-2



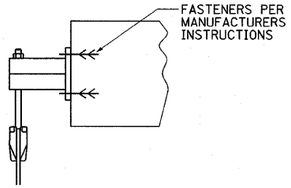
DETAIL 1

NOTES:

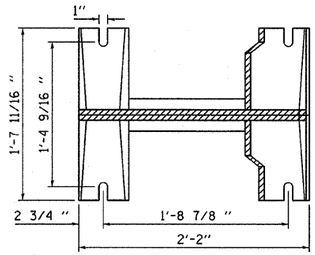
1. LOCATION OF LOW FLOW PUMP IS INTENDED TO BE COORDINATED WITH HATCH ABOVE. CONTRACTOR SHALL INSTALL GUIDE WIRE IN HATCH OPENING PER PUMP MANUFACTURERS INSTRUCTIONS. GUIDE CABLE MAXIMUM ANGLE FROM VERTICAL SHALL BE 5°.
2. SEE M-6 FOR PIPE SUPPORTS.
3. FOR GENERAL NOTES SEE DWG M-1.



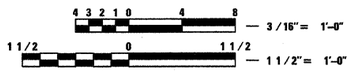
DETAIL 2



SECTION J–J



SECTION K–K
M-2



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL ARRANGEMENT – PLANS & SECTIONS

SCALE: VERT. 3/16"=1'-0"
HORIZ.
DATE: 3/23/2010

DRAWN BY: R.D
CHECKED BY: A.M.

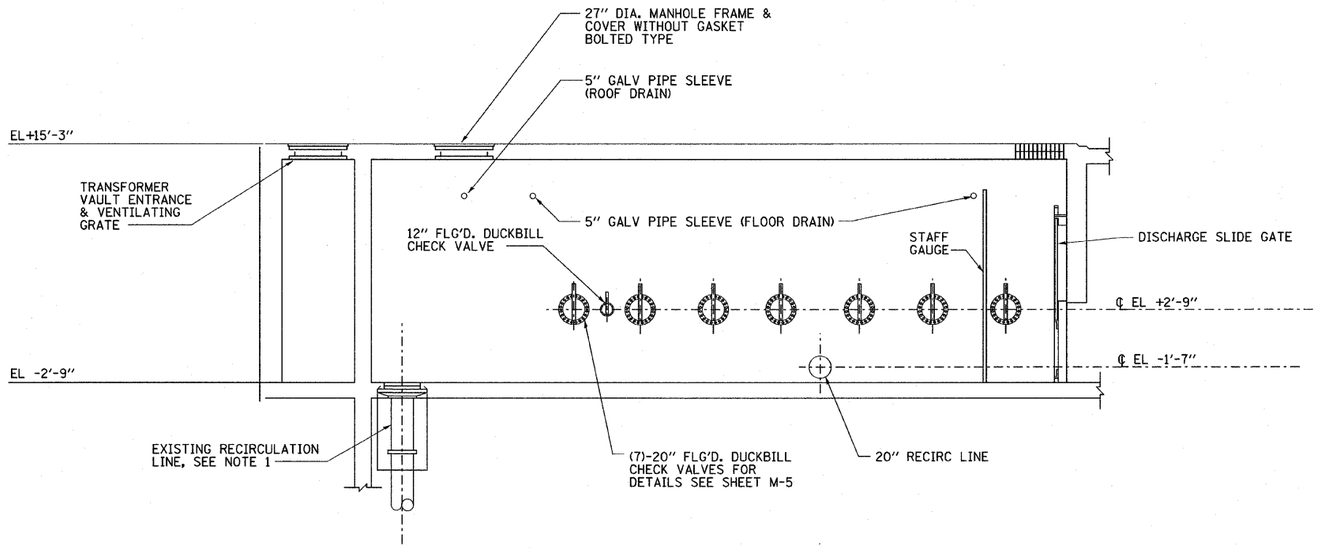
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001633

PLOT DATE = 3/22/2010
FILE NAME = c:\projects\...\M-M-03.dgn
PLOT SCALE = 1.0000 '/ Inch
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	37
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



ELEVATION F–F

M-2

NOTES:

1. CONTRACTOR TO FILL ENTIRE LENGTH OF EXISTING RECIRCULATION PIPE WITH HYDRAULIC CEMENT. FINISH FLUSH WITH FLOOR.

4 3 2 1 0 4 8 — 3/16" = 1'-0"

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No: 184-006533

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL ARRANGEMENT – ELEVATION

SCALE: VERT. 3/16"=1'-0" HORIZ.
DATE: 3/23/2010

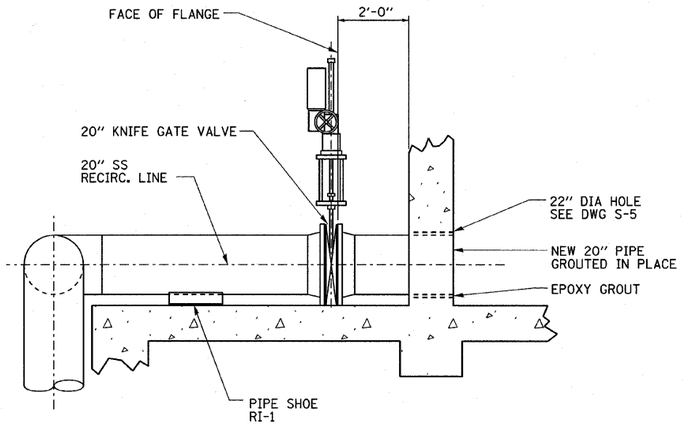
DRAWN BY: R.D
CHECKED BY: A.M.

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-mn-M-04.dgn
PLOT SCALE = 1.0000
USER NAME = *USER*

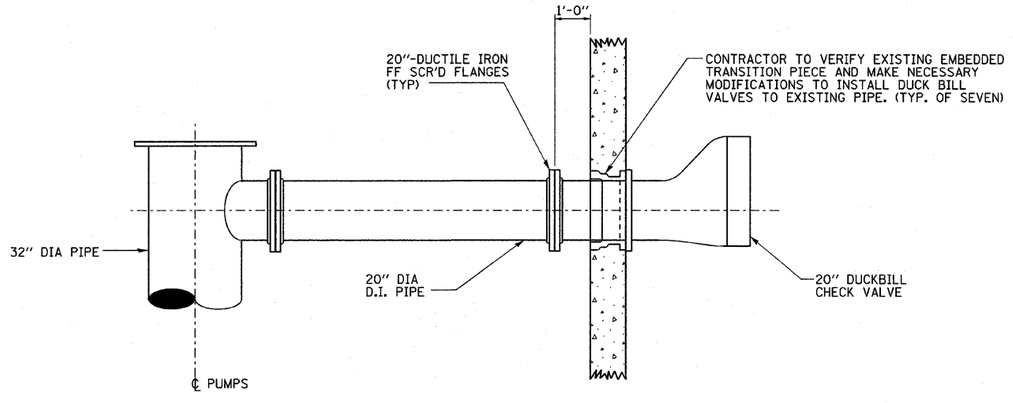
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	38
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



SECTION D–D
M-3



SECTION C–C
M-3

NOTES:
1. FOR GENERAL NOTES SEE DWG M-1.

1 0 1 2 3 4 5 — 1/2"= 1'-0"

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

ILLINOIS DEPARTMENT OF TRANSPORTATION

PIPE DETAILS

SCALE: VERT. 1/2"=1'-0" HORIZ.
DATE: 3/23/2010

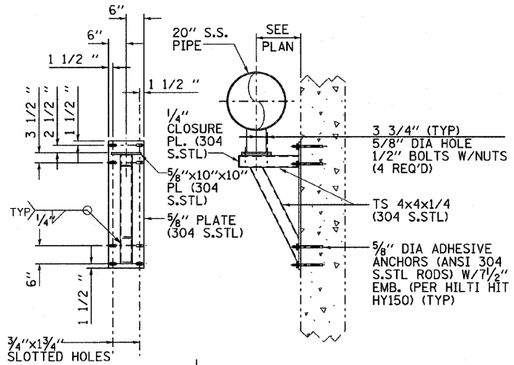
DRAWN BY: R.D
CHECKED BY: A.M.

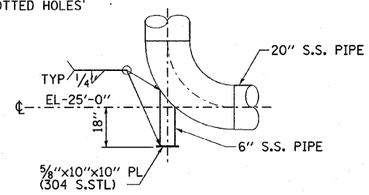
PLOT DATE = 3/22/2010
FILE NAME = I:\60828\sht-M-#ES.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

CONTRACT NO. 60828

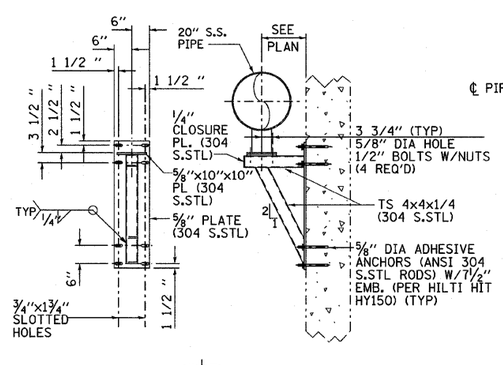
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	39
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

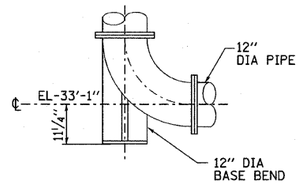
D-91-411-99



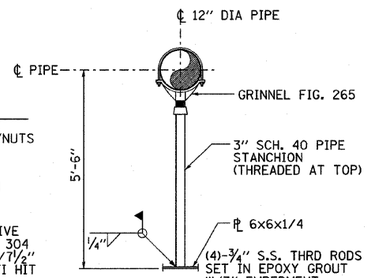


20" PIPE SUPPORT RI-6



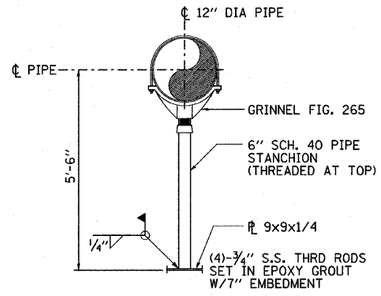


12" PIPE SUPPORT LF-5



PIPE SUPPORT LF-1

(1) REQ'D



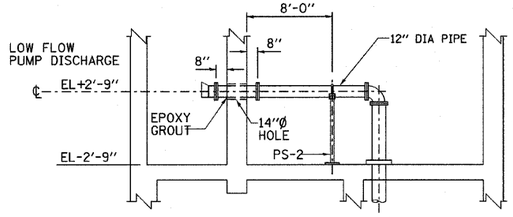
PIPE SUPPORT DI-1 THRU 7

(7) REQ'D

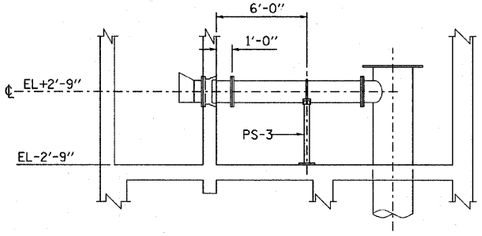
IDOT PUMP STATION 26 HANGER SCHEDULE

RI = RECIRCULATION PIPING
DI = DISCHARGE PIPING
LF = LOW FLOW PUMP PIPING

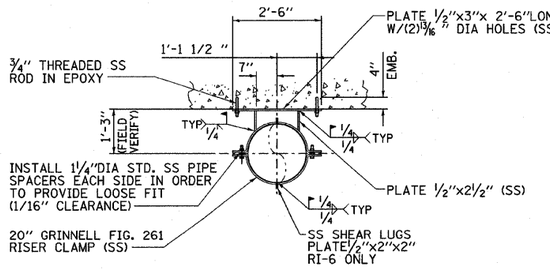
HANGER NO.	DETAIL NO.	PIPE SIZE	DRAWING NOS.	ELEVATION	FLOOR/WALL	TYPE	TYPE	HARDWARE	LOAD (LBS)
DI-1	PIPE SUPPORT DI-1 THRU 7	20"	M-2 M-3 M-6	-2'-9"	FLOOR	VERTICAL	PIPE STANCHION	GRINNELL FIG. 265	1546
DI-2	PIPE SUPPORT DI-1 THRU 7	20"	M-2 M-3 M-6	-2'-9"	FLOOR	VERTICAL	PIPE STANCHION	GRINNELL FIG. 265	1546
DI-3	PIPE SUPPORT DI-1 THRU 7	20"	M-2 M-3 M-6	-2'-9"	FLOOR	VERTICAL	PIPE STANCHION	GRINNELL FIG. 265	1546
DI-4	PIPE SUPPORT DI-1 THRU 7	20"	M-2 M-3 M-6	-2'-9"	FLOOR	VERTICAL	PIPE STANCHION	GRINNELL FIG. 265	1546
DI-5	PIPE SUPPORT DI-1 THRU 7	20"	M-2 M-3 M-6	-2'-9"	FLOOR	VERTICAL	PIPE STANCHION	GRINNELL FIG. 265	1546
DI-6	PIPE SUPPORT DI-1 THRU 7	20"	M-2 M-3 M-6	-2'-9"	FLOOR	VERTICAL	PIPE STANCHION	GRINNELL FIG. 265	1546
DI-7	PIPE SUPPORT DI-1 THRU 7	20"	M-2 M-3 M-6	-2'-9"	FLOOR	VERTICAL	PIPE STANCHION	GRINNELL FIG. 265	1546
LF-1	PIPE SUPPORT LF-1	12"	M-2 M-3 M-6	-2'-9"	FLOOR	VERTICAL	PIPE STANCHION	GRINNELL FIG. 265	1124
LF-2	PIPE GUIDES LF-2, 4 & 6	12"	M-2 M-3 M-6	-2'-9"	FLOOR	GUIDE	CLAMP	GRINNELL FIG. 261	0
LF-3		12"	M-2 M-3 M-6	-17'-9"	WALL	ANCHOR	BASE ELL ANCHOR	P 6-30, 6-32 AMERICAN PIPE CATALOG	3756
LF-4	PIPE GUIDES LF-2, 4 & 6	12"	M-2 M-3 M-6	-20'-9"	FLOOR	GUIDE	CLAMP	GRINNELL FIG. 261	0
LF-5		12"	M-2 M-3 M-6	-33'-0"	WALL	ANCHOR	BASE ELL ANCHOR	P 6-30, 6-32 AMERICAN PIPE CATALOG	5023
LF-6	PIPE GUIDES LF-2, 4 & 6	12"	M-2 M-3 M-6	-35'-0"	WALL	HORIZONTAL	LATERAL RESTRAINT	GRINNELL FIG. 261	0
LF-7	PUMP VENDOR DRAWING	12"	12" KSE 75-6T, S-4	-39'-3"	FLOOR	ANCHOR	PUMP BASE	PUMP VENDOR	0
RI-1	PIPE SHOE RI-1	20"	M-3 M-6	-2'-9"	FLOOR	VERTICAL	PIPE SHOE		14625
RI-3	PIPE GUIDES RI-3, 4 & 6	20"	M-2 M-3 M-6	-10'-9"	WALL	GUIDE	CLAMP	GRINNELL FIG. 261	0
RI-4	PIPE GUIDES RI-3, 4 & 6	20"	M-2 M-3 M-6	-18'-9"	WALL	GUIDE	CLAMP	GRINNELL FIG. 261	0
RI-5		20"		-26'-9"	WALL	ANCHOR	BASE ELL ANCHOR	P 6-30, 6-32 AMERICAN PIPE CATALOG	14625
RI-6	PIPE GUIDES RI-3, 4 & 6	20"	M-2 M-3 M-6	-34'-9"	WALL	GUIDE + VERTICAL	CLAMP WITH SHEAR LUGS	GRINNELL FIG. 261	0



ELEVATION G-G

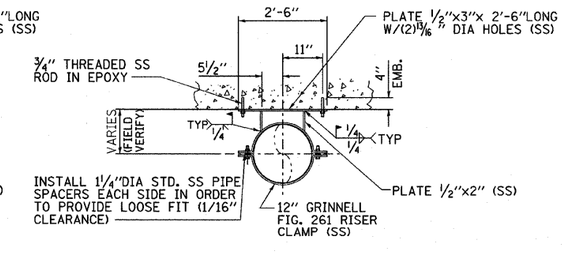


ELEVATION H-H



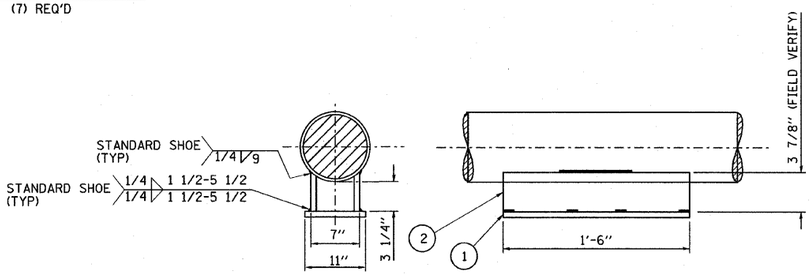
20" PIPE GUIDES

RI-3, 4 & 6



12" PIPE GUIDES

(LF-2, 4 & 6



(1) 1/2"x11"x1'-6" CARBON STEEL PLATE, A-36

(2) 1/2"x1'-6" CARBON STEEL PLATE, A-36

20" PIPE SHOE

RI-1

REVISIONS NAME	DATE

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-00533

ILLINOIS DEPARTMENT OF TRANSPORTATION

PIPE SUPPORT & DETAILS

SCALE: VERT. NO SCALE
HORIZ.
DATE: 3/23/2010

DRAWN BY: R.D
CHECKED BY: A.M.

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-sht-M-86.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	40
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99

EQUIPMENT SCHEDULE

ITEM	DESCRIPTION	LOCATION	ELECTRICAL MOTOR CHARACTERISTICS						PUMP		FAN				MOUNTING	REMARKS
			KW (MIN)	HP (MIN)	RPM (MAX)	VOLTS	PHASE	HZ	CAPACITY (gpm)	HEAD (feet)	TYPE	CAPACITY (cfm)	SP (PA)	SP (In)		
MP 1	MAIN PUMP #1	WET WELL	150	200	1200	460	3	60	10,000	53						SEE NOTES 1 AND 2
MP 2	MAIN PUMP #2	WET WELL	150	200	1200	460	3	60	10,000	53						SEE NOTES 1 AND 2
MP 3	MAIN PUMP #3	WET WELL	150	200	1200	460	3	60	10,000	53						SEE NOTES 1 AND 2
MP 4	MAIN PUMP #4	WET WELL	150	200	1200	460	3	60	10,000	53						SEE NOTES 1 AND 2
MP 5	MAIN PUMP #5	WET WELL	150	200	1200	460	3	60	10,000	53						SEE NOTES 1 AND 2
MP 6	MAIN PUMP #6	WET WELL	150	200	1200	460	3	60	10,000	53						SEE NOTES 1 AND 2
MP 7	MAIN PUMP #7	WET WELL	150	200	1200	460	3	60	10,000	53						SEE NOTES 1 AND 2
LFP 1	LOW FLOW PUMP #1	WET WELL	55	75	1200	460	3	60	3,200	56						SEE NOTES 1 AND 2
SF-1	SUPPLY FAN	MCC CONTROL ROOM WALL	0.4	1/2	1725	120	1	60			PROP	1700	125	0.5	WALL	SEE NOTE 2
SF-2	SUPPLY FAN	PUMP ACCESS ROOM ROOF	3.7	5	1725	460	3	60			SWSI CENTRIF	8200	250	1.0	ROOF	SEE NOTE 4
EF-1	EXHAUST FAN	PUMP ACCESS ROOM ROOF	0.2	1/4	1725	120	1	60			ROOF CENTRIF	750	94	0.375	ROOF	SEE NOTE 4
EF-2	EXHAUST FAN	STAIRWELL ROOF	1.5	2	1725	460	3	60			ROOF CENTRIF	8200	125	0.5	ROOF	SEE NOTE 4
UH-1A	UNIT HEATER	MCC CONTROL ROOM	3			460	3	60								SEE NOTE 5
UH-1B	UNIT HEATER	MCC CONTROL ROOM	3			460	3	60								SEE NOTE 5
UH-2A	UNIT HEATER	PUMP ACCESS ROOM	5			460	3	60								SEE NOTES 2 AND 5
UH-2B	UNIT HEATER	PUMP ACCESS ROOM	5			460	3	60								SEE NOTES 2 AND 5
UH-3	UNIT HEATER	STAIRWELL	5			460	3	60								SEE NOTES 2 AND 5
G-1	GATE VALVE ACTUATOR	LOWER LEVEL	1.5	2		460	3	60								SEE NOTES 2 AND 5
G-2	SLIDE GATE ACTUATOR	DISCHARGE CHAMBER	1.5	2		460	3	60								SEE NOTE 2
HM-1	HOIST MOTOR	AT ROOF	0.4	1/2		460	3	60								SEE NOTE 2
TM-1	TROLLEY MOTOR	AT ROOF	0.4	1/2		460	3	60								SEE NOTE 2
TR-1	TRASH RAKE HYDRAULIC PWR UNIT	CONTROL ROOM	2.2	3		460	1	60								SEE NOTE 2

IDOT PUMP STATION 26
PIPING FITTINGS

SYSTEM	PIPE SIZE	FITTING TYPE	QUANTITY	MATERIAL	MATERIAL SPECIFICATION
MAIN PUMP DISCHARGE	20"	SCREWED FLANGED	21	DUCTILE IRON	ANSI / AWWA C115 / A21.15
RECIRCULATION PIPING	20"	90° L.R. ELBOW	6	STAINLESS STEEL	ASTM A-403 GR. WP304 STANDARD WEIGHT ANSI B16.9
RECIRCULATION PIPING	20"	150# RAISED FACE WELD NECK FLANGE	2	STAINLESS STEEL	ASTM A-182 GR. F304 ANSI B16.5
LOW FLOW PUMP DISCHARGE	12"	90° L.R. ELBOW	6	DUCTILE IRON	ANSI / AWWA C115 / A21.15
LOW FLOW PUMP DISCHARGE	12"	SCREWED FLANGED	26	DUCTILE IRON	ANSI / AWWA C115 / A21.15

PUMPING OPERATION RANGES WITH RISING WATER

FUNCTION	SCADA (BUBBLER)		FLOAT	
	ELEVATION	LEVEL ABOVE WET PIT FLOOR	ELEVATION	LEVEL ABOVE WET PIT FLOOR
	(FT)	(FT)	(FT)	(FT)
LOW FLOW START	-35.25	7.00	-34.75	7.50
LEAD MAIN START & LOW FLOW STOP	-33.75	8.50	-33.25	9.00
LAG 1 MAIN PUMP START	-33.00	9.25	-32.50	9.75
LAG 2 MAIN PUMP START	-32.25	10.00	-31.75	10.50
LAG 3 MAIN PUMP START	-31.50	10.75	-31.00	11.25
LAG 4 MAIN PUMP START	-30.75	11.50	-30.25	12.00
LAG 5 MAIN PUMP START	-30.00	12.25	-29.50	12.75
HIGH WATER ALARM	-26.50	15.75	-26.50	15.75

PUMPING OPERATION RANGES WITH FALLING WATER

FUNCTION	SCADA (BUBBLER)		FLOAT	
	ELEVATION	LEVEL ABOVE WET PIT FLOOR	ELEVATION	LEVEL ABOVE WET PIT FLOOR
	(FT)	(FT)	(FT)	(FT)
ALL PUMPS STOP	-36.75	5.50	-37.5	4.75
LOW WATER ALARM MAIN PUMPS	-38.25	4.00	-38.25	4.00
LOW WATER ALARM LOW FLOW PUMP	-43.00	2.25	-43.00	2.25

NOTES:

1. THE DESIGN OF THE PUMP STATION HAS BEEN BASED ON A SPECIFIC PUMP. OTHER PUMPS PRODUCING THE SAME HYDRAULIC CHARACTERISTICS WITH SIMILAR FEATURES ARE ACCEPTABLE. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MAKE ALL ADJUSTMENTS TO THE STATION DESIGN REQUIRED TO ADOPT HIS FINAL SELECTED PUMPS AT NO ADDITIONAL COST.
2. EQUIPMENT SHALL BE DESIGNED FOR CLASS 1, DIV. 1 GROUP D EXPLOSION PROOF.
3. REFER TO SECTION 15E FOR DAMPER SCHEDULE.
4. AMCA TYPE "B" SPARK-PROOF CONSTRUCTION. MOTOR AND DRIVE IN WEATHERPROOF VENTILATED ENCLOSURE EXTERNAL TO AIR STREAM OR NEMA 7 EXPLOSION PROOF SUITABLE FOR NEC CLASS 1, DIV 1, GROUP D ENVIRONMENT.
5. INTEGRAL THERMOSTAT. NEC OVERCURRENT AND OVERTEMP SAFETIES.

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60633-2804
www.stanleygroup.com
Illinois Firm Registration No. 184-006533

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

EQUIPMENT SCHEDULE & PUMPING OPERATING ELEVATION

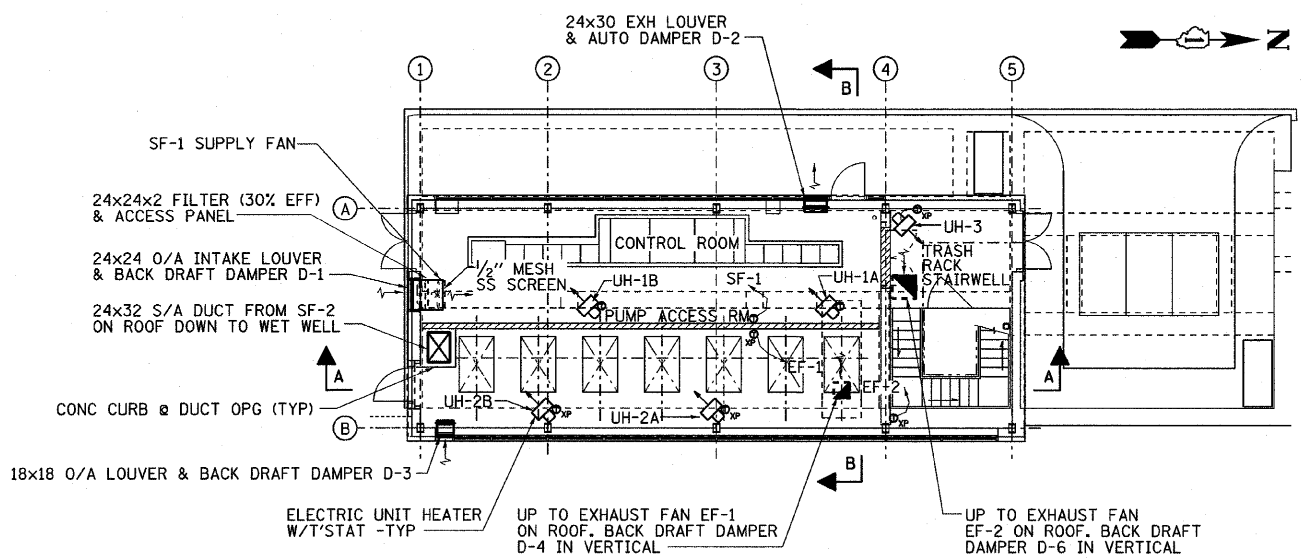
SCALE: VERT. NO SCALE HORIZ. | DRAWN BY: R.D
DATE: 3/23/2010 | CHECKED BY: A.M.

PLOT DATE = 3/22/2010
FILE NAME = I:\686626-sht-M-07.dgn
PLOT SCALE = 1.0
USER NAME = #USER#

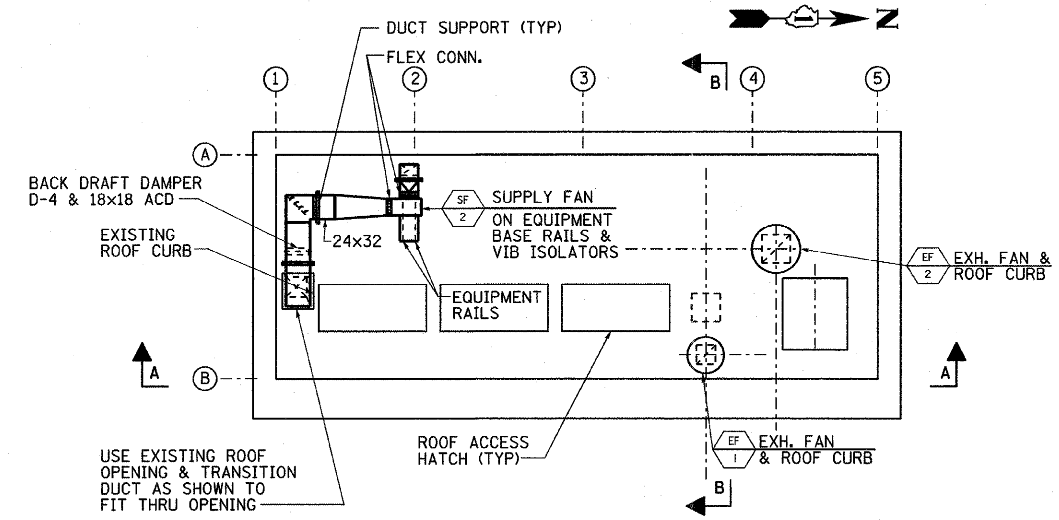
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	41
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

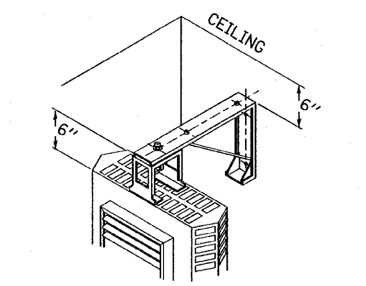
D-91-411-99



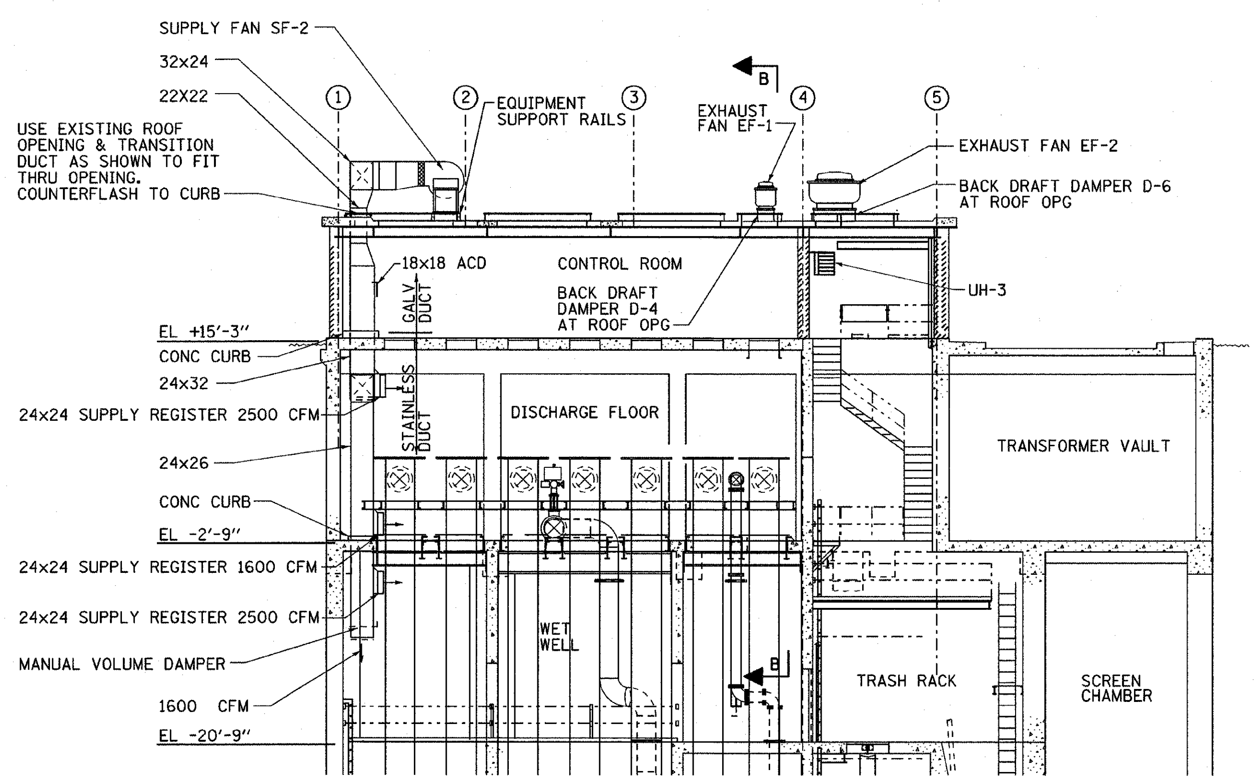
PLAN AT EL +15'-3"



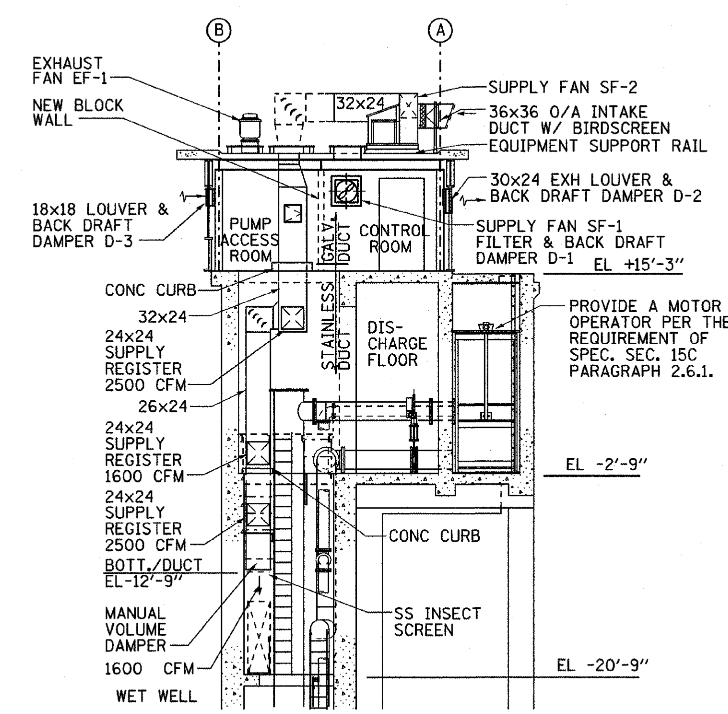
ROOF PLAN



UNIT HEATER MOUNTING DETAIL



SECTION A–A
(LOOKING WEST)



SECTION B–B
(LOOKING SOUTH)

VENTILATION CONTROL SEQUENCE

(REFERENCE DRAWING E-9)

MCC CONTROL ROOM VENTILATION

THE SUPPLY FAN SF-1 SHALL BE SUPPLIED WITH A "HAND-OFF-AUTO" (HOA) SWITCH. THE FAN WILL RUN CONTINUOUSLY WHEN SWITCHED TO "HAND". THE FAN WILL NOT RUN WHEN SWITCHED TO "OFF". WHEN IN "AUTO", THE FAN WILL RUN WHEN THE ROOM THERMOSTAT REACHES THE SETPOINT 85 DEG F. THE FAN STARTER WILL ALSO OPEN THE FAN DAMPER D-1 AND THE EXHAUST DAMPER D-2.

LOWER LEVEL/WET WELL VENTILATION

THE SUPPLY FAN SF-2 AND EXHAUST FAN EF-2 SHALL BE SUPPLIED WITH "HAND-OFF-AUTO" (HOA) SWITCHES. THE FANS WILL RUN CONTINUOUSLY WHEN SWITCHED TO "HAND". THE FANS WILL NOT RUN WHEN SWITCHED TO "OFF". WHEN IN "AUTO", THE FANS WILL RUN EITHER WHEN ROOM THERMOSTAT REACHES SETPOINT (30 DEG C, 85 DEG F), OR WHEN LIGHTS IN THE WET WELL ARE SWITCHED ON, OR WHEN COMBUSTIBLE GAS IS DETECTED (25% OF L.E.L). THE FAN DAMPERS D-5 AND D-6 WILL OPEN AUTOMATICALLY WHEN THEIR RESPECTIVE FANS ARE STARTED.

PUMP ACCESS ROOM

EXHAUST FAN EF-1 SHALL BE SUPPLIED WITH A "HAND-OFF-AUTO" (HOA) SWITCH. THE FAN WILL RUN CONTINUOUSLY WHEN SWITCHED TO "HAND". THE FAN WILL NOT RUN WHEN SWITCHED TO "OFF". WHEN IN "AUTO", THE FAN WILL RUN EITHER WHEN THE ROOM THERMOSTAT REACHES SETPOINT (30 DEG C, 85 DEG F), OR WHEN COMBUSTIBLE GAS IS DETECTED (25% OF L.E.L). DAMPERS D-3 & D-4 WILL OPEN AUTOMATICALLY WHEN THE FAN STARTS.

NOTES:

1. SUPPLY REGISTERS TO BE TITUS MODEL300-FL OR EQUIVALENT, ALUMINUM CONSTRUCTION.

4 0 4 8 12 — 1/8" = 1'-0"

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-00533

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

HEATING & VENTILATION – PLANS & DETAILS

SCALE: VERT. HORIZ. 1/8"=1'-0"
DATE: 3/23/2010
DRAWN BY: R.D
CHECKED BY: A.M.

PLOT DATE = 3/22/2010
FILE NAME = D160828-sht-M-08.dgn
PLOT SCALE = 1:8
USER NAME = $USER$

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	42
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99

ELECTRICAL SYMBOL LIST

SYMBOLS FOR ELECTRICAL PLANS

SYMBOL	DESCRIPTION
NEUTRAL / GROUND	MINIMUM CONDUIT SIZE SHALL BE 3/4", UNLESS OTHERWISE NOTED. MINIMUM WIRE SIZE SHALL BE 12 AWG, UNLESS OTHERWISE NOTED. CROSS HATCH LINES INDICATE NUMBER OF WIRES
	UNDERGROUND DUCT LINE
	CONDUIT CONCEALED IN CEILING OR WALLS
	CONDUIT CONCEALED IN FLOOR OR UNDER FLOOR
	CONDUIT EXPOSED
	CONDUIT TURNED UP
	CONDUIT TURNED DOWN
	PAD MOUNTED TRANSFORMER
	GROUND ROD
J	JUNCTION BOX
	FLUSH MOUNTED JUNCTION BOX
	PANELBOARD
XP	COMBINATION INTERLOCKED RECEPTACLE AND DISCONNECT SWITCH WITH EXTERNAL OPERATOR 3P, 600V, NO.• NEMA TYPE X.P. EXPLOSION PROOF
4	DISCONNECT SWITCH WITH EXTERNAL OPERATOR 30 AMP - 3 POLE, 600V U.N.O., NO.• NEMA TYPE X.P. EXPLOSION PROOF
	DUPLEX CONVENIENCE RECEPTACLE GFI-GROUND FAULT CIRCUIT INTERRUPTER, WP-WEATHERPROOF COVER, LOCKING
	EXPLOSION PROOF RECEPTACLE, 125 VAC STRAIGHT BLADE
	WALL MOUNTED LIGHTING FIXTURE
	INCANDESCENT OR HID LUMINAIRE (LETTER DENOTES TYPE) (NUMBER DENOTES CIRCUIT)
A-2a	FLUORESCENT FIXTURE (A) INDICATES FIXTURE TYPE - REFER TO FIXTURE SCHEDULE. (2a) INDICATES CIRCUIT NO. 2 ON SWITCH a TYP.
T	FLUORESCENT FIXTURE WALL MOUNTED
	FLUORESCENT FIXTURE ON EMERGENCY CIRCUIT
	INCANDESCENT, COMPACT FLUORESCENT, OR HID FIXTURE ON EMERGENCY CIRCUIT
	CONDUIT SEAL
	SPECIAL PURPOSE RECEPTACLE
	CONTROL CABLE CONNECTOR

SYMBOLS FOR ELECTRICAL PLANS

SYMBOL	DESCRIPTION
	PUSH BUTTON STATION
	UNIT HEATER
D	DAMPER GRAVITY TYPE
GS	GAS SENSOR
FS	FLOAT SWITCH
B	COMPRESSION BELL
5	MOTOR, NUMBER DENOTES HORSEPOWER
CS	CONTROL STATION AS NOTED (PUSHBUTTONS AND INDICATOR LIGHTS)
T	THERMOSTAT
LS	INTRUSION LIMIT SWITCH
SD	SMOKE DETECTOR
KS	KEY SWITCH
	TELEPHONE OUTLET
	DATA OUTLET
LP-1	FLUSH MOUNTED PANELBOARD — PANEL TYPE (LIGHTING PANEL) — UNIT NUMBER
	SURFACE MOUNTED PANELBOARD
	MANUAL DISCONNECT SWITCH NONFUSED (RATING AS INDICATED)
	MANUAL DISCONNECT SWITCH FUSED (RATING AS INDICATED)
L	LIMIT SWITCH
T	TRANSFORMER
F	FIRE ALARM PULL STATION
UH	UNIT HEATER OR FAN
SV	SOLENOID VALVE
PS	PRESSURE SWITCH
MS	120V MANUAL STARTER
LT	LEVEL/TEMP SWITCH
3 / 2a	INDICATES 3 WAY SWITCH 120V SINGLE POLE SWITCH INDICATES SWITCH CIRCUIT NUMBER XP - EXPLOSION PROOF
AV	AUDIBLE & VISUAL

SYMBOLS FOR SINGLE LINE DIAGRAM

SYMBOL	DESCRIPTION
V	VOLTMETER
VS	VOLTMETER SELECTOR SWITCH
	CURRENT TRANSFORMER
A	AMMETER
AS	AMMETER SELECTOR SWITCH
GFR	GROUND FAULT RELAY
SS	SELECTOR SWITCH
	CIRCUIT BREAKER
	FUSE
	THERMAL OVERLOAD ELEMENT
P/T	POTENTIAL TRANSFORMER
M	COMMONWEALTH EDISON (C.E.) CO. METER
XP	DISCONNECT SWITCH WITH EXTERNAL HANDLE 30AMP, 3 POLE, 600V U.N.O. NO. NEMA TYPE X.P. EXPLOSION PROOF
XP	EXPLOSION PROOF RECEPTACLE SLEEVE TYPE
XP	EXPLOSION PROOF PLUG PIN TYPE
XP	SPECIAL PURPOSE RECEPTACLE 480V, XP INDICATES EXPLOSION PROOF

SYMBOLS FOR CONTROL SCHEMATICS

SYMBOL	DESCRIPTION
	MOTOR STARTER CONTACTS
	PUSHBUTTON MOMENTARY MAKE CONTACT
	PUSHBUTTON MOMENTARY BREAK CONTACT
	PUSHBUTTON MAINTAINED CONTACT
	2 OR 3 POSITION SELECTOR SWITCH CLOSED CONTACTS INDICATED BY "X"
	MULTI-POSITION, MULTI-CONTACT SELECTOR SWITCH CLOSED CONTACT INDICATED BY "X"
P	INDICATOR LIGHT, LETTER DENOTES COLOR
P	PUSH-TO-TEST INDICATOR LIGHT
C	RELAY COIL
D	TIME DELAY RELAY
SYNC	SYNCHRONOUS MOTOR TIME DELAY RELAY
	CONTACT NORMALLY OPEN
	CONTACT NORMALLY CLOSED
	FLOAT SWITCH, CLOSES ON RISING LEVEL
	FLOAT SWITCH, OPENS ON RISING LEVEL
TS	TEMPERATURE ACTUATED SWITCH CLOSES ON RISING TEMPERATURE
TS	TEMPERATURE ACTUATED SWITCH OPENS ON RISING TEMPERATURE
LS	LIMIT SWITCH, NORMALLY OPEN
LS	LIMIT SWITCH, NORMALLY CLOSED
ETM	ELAPSED TIME METER
OC	OPERATIONS COUNTER
	DISCONNECTING PLUG AND RECEPTACLE
	TERMINAL DESIGNATION
	UNDERGROUND DUCT SECTION ⊕ ACTIVE O SPARE
SH 1	EQUIPMENT IDENTIFICATION TAG
(.2 SEC) TDC	OPEN CONTACT WITH TIME-DELAY CLOSE FEATURE (SHOWS DURATION)
(.2 SEC) TDO	CLOSED CONTACT WITH TIME-DELAY OPEN FEATURE (SHOWS DURATION)

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
AC	ALTERNATIVE CURRENT
ACK	ACKNOWLEDGE
BS	BEARING TEMPERATURE
C.B.	CIRCUIT BREAKER
CCT	CIRCUIT
CECO	COMMONWEALTH EDISON COMPANY
CR	CONTROL RELAY
DISC.	DISCONNECT
DS	DOOR SWITCH CIRCUIT
EF	EXHAUST FAN
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
G.F.I.	GROUND FAULT INTERRUPTER
GND	GROUND
GRF	GROUND FAULT RELAY
H.P.	HORSEPOWER
JB	JUNCTION BOX
LFP	LOW FLOW PUMP
LS	LIMIT SWITCH
LTG	LIGHTING
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MH	MOUNTING HEIGHT
MM	MILLIMETER
MOD	MOTOR OPERATED DAMPER
MP	MAIN PUMP
N.C.	NORMALLY CLOSED (CONTACT)
N.O.	NORMALLY OPEN (CONTACT)
NIC	NOT IN CONTRACT
PNL	PANEL
SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
SF	SUPPLY FAN
SS	LEAKAGE SENSOR
STA	STATION
SW	SWITCH
SWGR	SWITCHGEAR
TDC	TIME-DELAY CLOSE
TDO	TIME-DELAY OPEN
TP	THERMAL PROTECTION (WINDING)
TRANSF.	TRANSFORMER
TS	THERMOSTAT
U.N.O.	UNLESS NOTED OTHERWISE
X.P.	EXPLOSION PROOF
XFER	TRANSFER
XFMR	TRANSFORMER

NOTES:

1. THIS IS A STANDARD LIST OF ABBREVIATIONS AND SYMBOLS THAT APPEARS IN THIS PROJECT.

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60193-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-006533

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYMBOL LIST

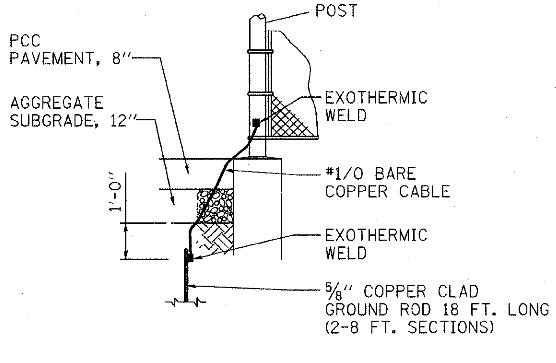
SCALE: VERT. NO SCALE / HORIZ.
DATE: 3/23/2010
DRAWN BY: B.K.
CHECKED BY: M.Z.

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-sht-E-01.dgn
PLOT SCALE = 1.0
USER NAME = #USER#

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	43
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

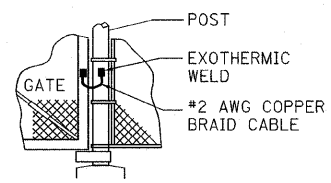
CONTRACT NO. 60828

D-91-411-99



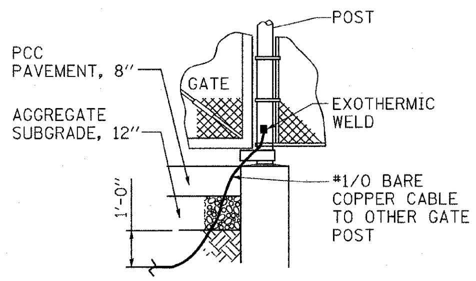
DETAIL A

FENCE POST GROUNDING



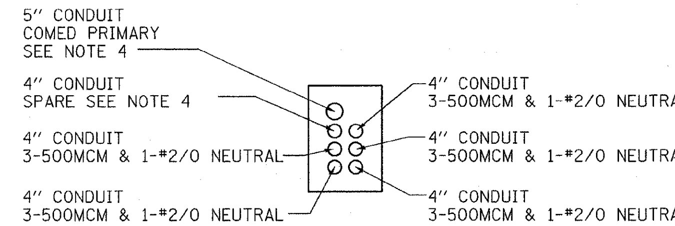
DETAIL C

FENCE GATE GROUNDING JUMPER

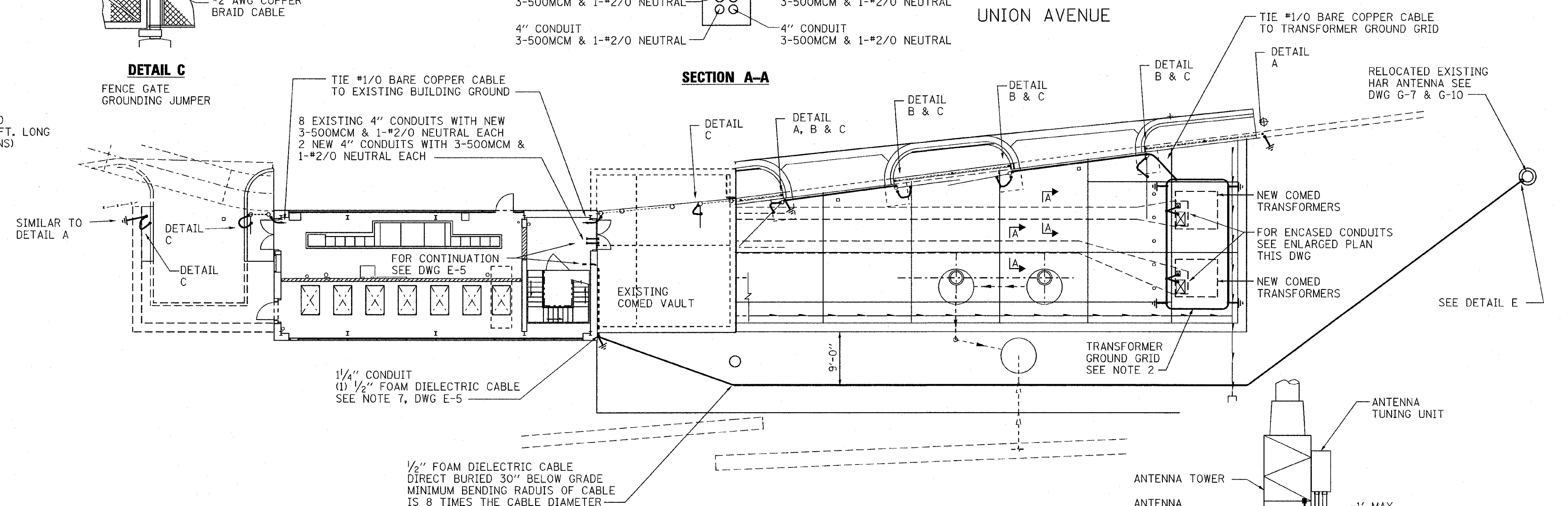


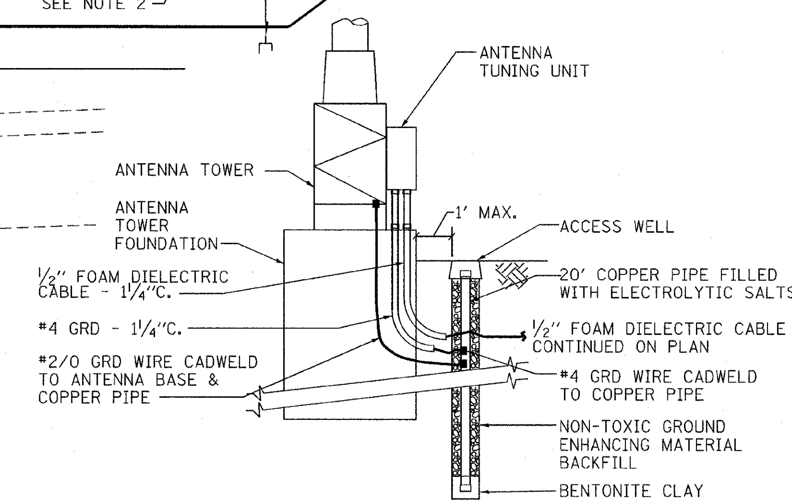
DETAIL B

FENCE GATE POST OPENING GROUNDING JUMPER

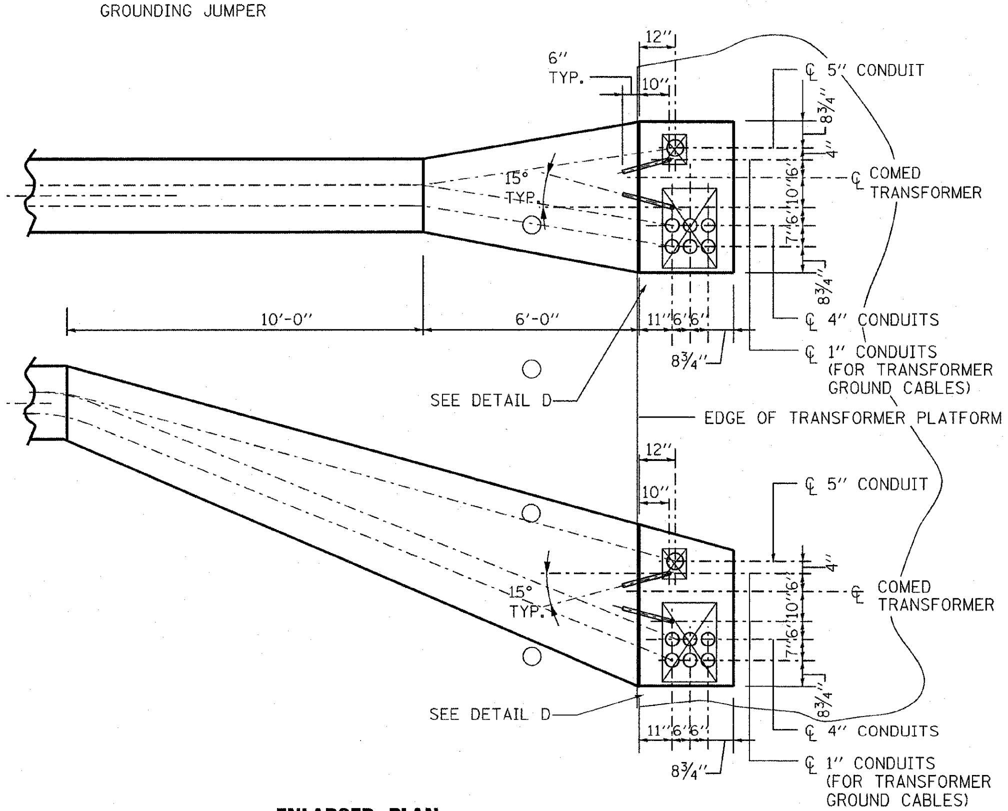


SECTION A-A





DETAIL E

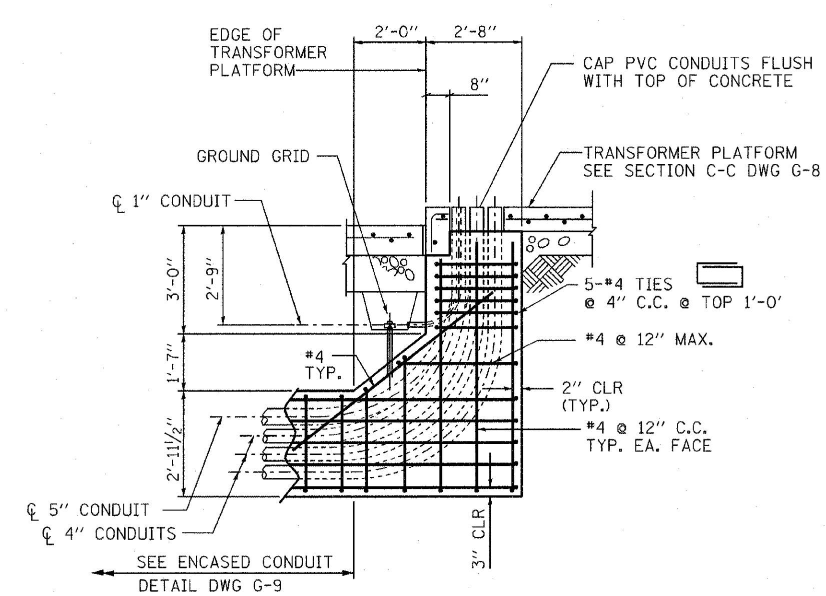


ENLARGED PLAN

ENCASED CONDUITS AT COMED TRANSFORMERS WORK WITH DWGS G-7, G-8 & G-9

PUMP STATION TRUCK LOT AND TRANSFORMER PAD WORK (MECHANICALLY STABILIZED EARTH RETAINING WALL CONSTRUCTION) WILL BE PERFORMED AS A SEPARATE CONTRACT.

THE CONTRACTOR SHALL COORDINATE HIS/HER WORK WITH THE PUMP STATION TRUCK LOT AND TRANSFORMER PAD CONTRACTOR IN ACCORDANCE WITH ARTICLE 105.08 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.



DETAIL D

ENCASED CONDUITS TERMINATION STRUCTURE

NOTE:

4" & 5" CONDUIT ELBOWS TO BE 48" RADUIS & 1" CONDUIT ELBOWS TO BE 12" RADUIS

NOTES:

1. FOR ADDITIONAL UNDERGROUND DUCTS DETAILS SEE DWGS G-7, G-8 & G-9.
2. GROUND GRID AND RODS AROUND TRANSFORMERS TO BE FURNISHED BY COMED AND INSTALLED BY CONTRACTOR PER COMED SPECIFICATION C5286.
3. EXISTING CONCRETE WALLS SHALL BE CORE DRILLED FOR NEW CONDUITS. ALL CONDUITS SHALL ENTER COMED VAULT PER COMED SPECIFICATION C4250. ALL CONDUIT PENETRATIONS BETWEEN HAZARDOUS AND NON-HAZARDOUS AREAS SHALL BE GROUTED GAS TIGHT.
4. CONTRACTOR TO INSTALL A #8 GALVANIZED PULL WIRE IN THE 5" UNDERGROUND CONDUITS DESIGNATED "COMED PRIMARY" AND THE 4" UNDERGROUND CONDUITS DESIGNATED "SPARE".

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No. 184-00533

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ELECTRICAL SITE PLAN & DETAILS

SCALE: VERT. HORIZ. NO SCALE

DATE: 3/23/2010

DRAWN BY: B.K.

CHECKED BY: M.Z.

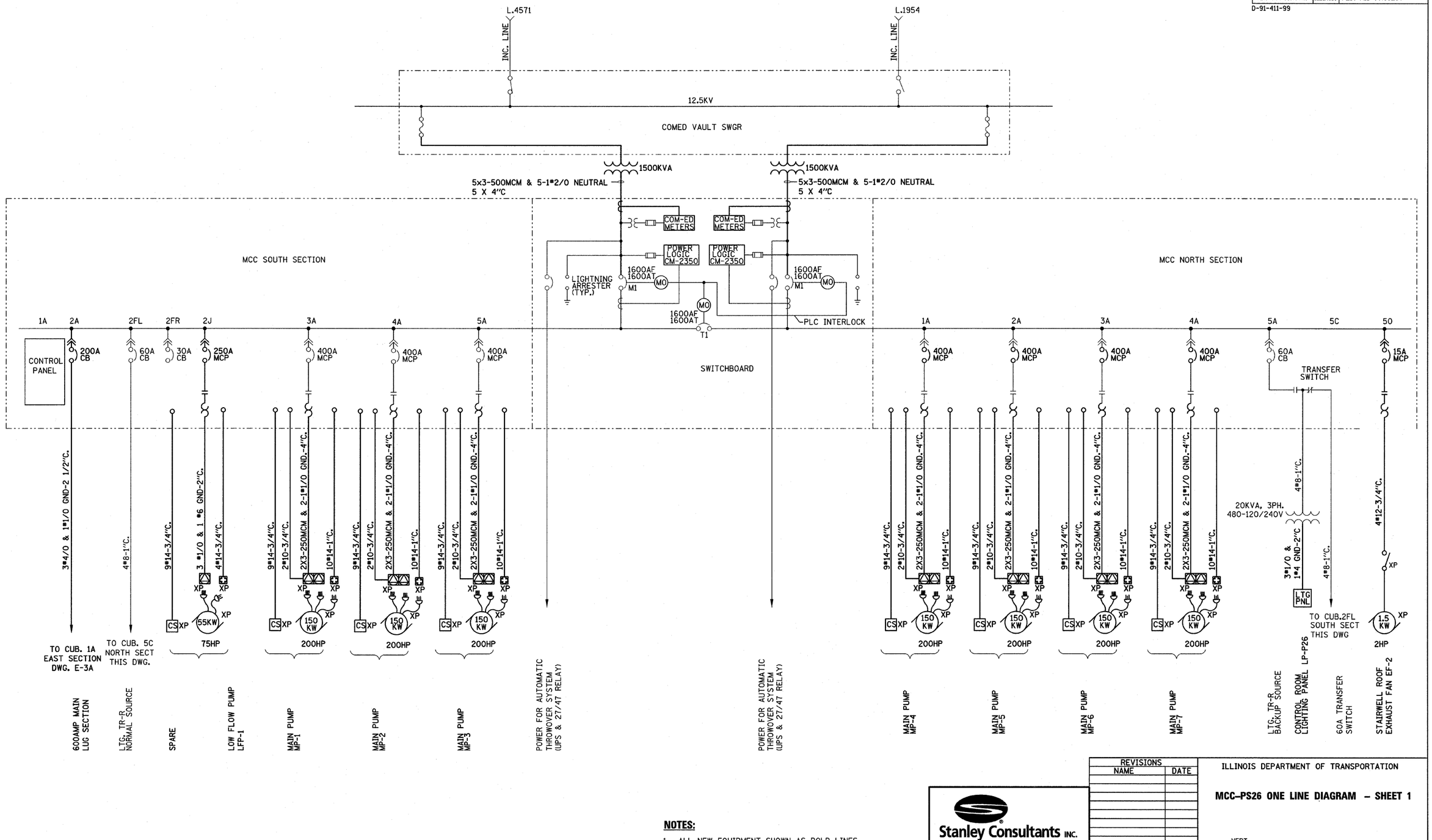
PLOT DATE = 3/22/2010
FILE NAME = D160828-sht-E-02.dgn
PLOT SCALE = 1:10
USER NAME = $USER$

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	44
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99

IDOT PS26 ELECTRICAL SYSTEM ONE LINE DIAGRAM



NOTES:

1. ALL NEW EQUIPMENT SHOWN AS BOLD LINES.

REVISIONS NAME	DATE

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No: 184-001533

ILLINOIS DEPARTMENT OF TRANSPORTATION

MCC-PS26 ONE LINE DIAGRAM – SHEET 1

SCALE: VERT. NO SCALE
HORIZ.
DATE: 3/23/2010

DRAWN BY: B.K.
CHECKED BY: M.Z.

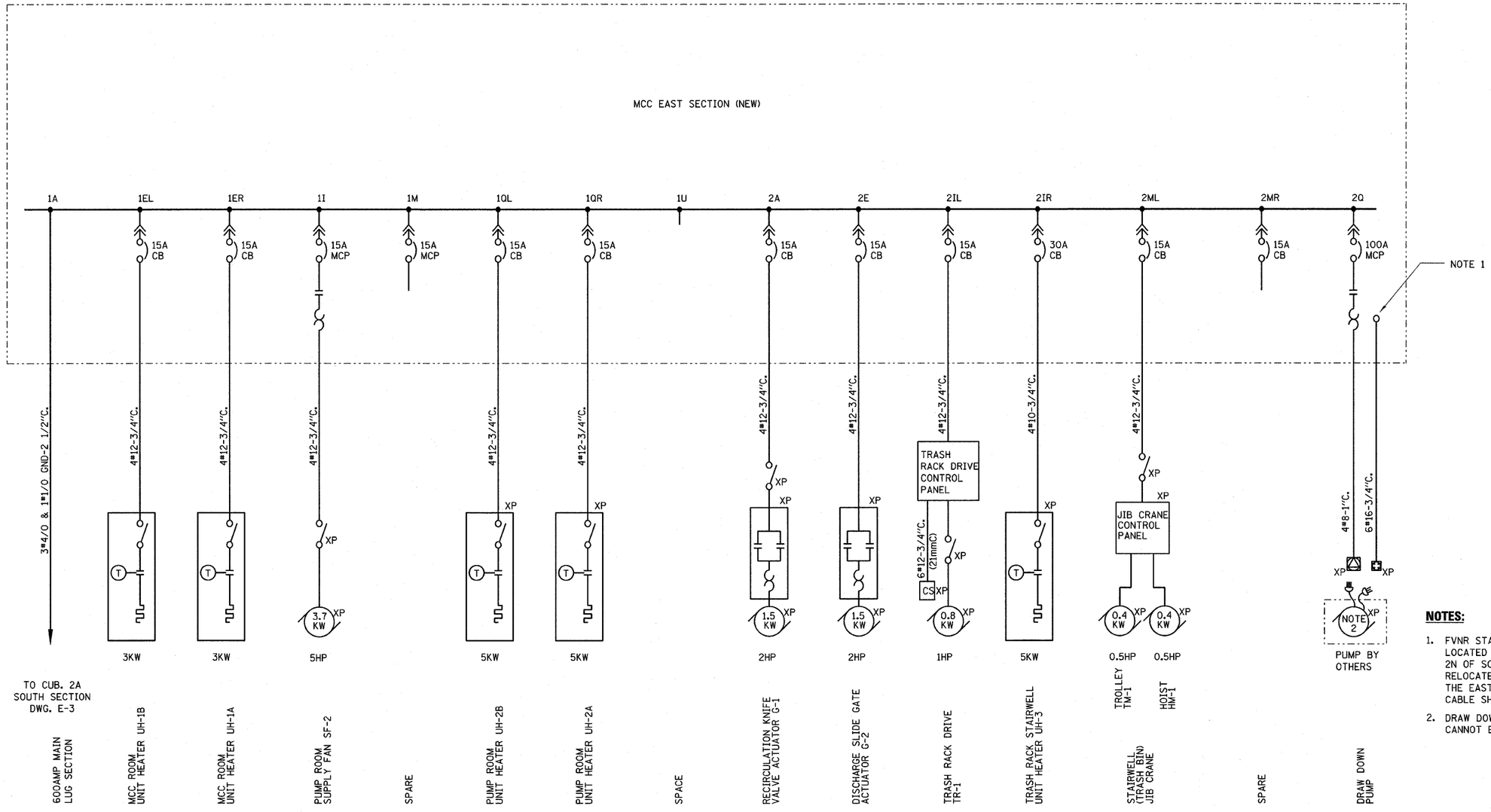
PLOT DATE = 3/22/2010
FILE NAME = c:\608\25-elvt-E-03.dgn
PLOT SCALE = 1.0
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	45
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99

IDOT PS26 ELECTRICAL SYSTEM ONE LINE DIAGRAM



NOTES:

1. FVNR STARTER FOR DRAW DOWN PUMP LOCATED IN THE EXISTING COMPARTMENT 2N OF SOUTH SECTION MCC SHOULD BE RELOCATED INTO COMPARTMENT 2Q OF THE EAST SECTION. EXISTING CONDUIT AND CABLE SHALL BE REMOVED.
2. DRAW DOWN PUMP PROVIDED BY IDOT AND CANNOT EXCEED 30HP.

REVISIONS	
NAME	DATE

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

ILLINOIS DEPARTMENT OF TRANSPORTATION

MCC-PS26 ONE LINE DIAGRAM – SHEET 2

SCALE: VERT. NO SCALE
HORIZ.
DATE: 3/23/2010

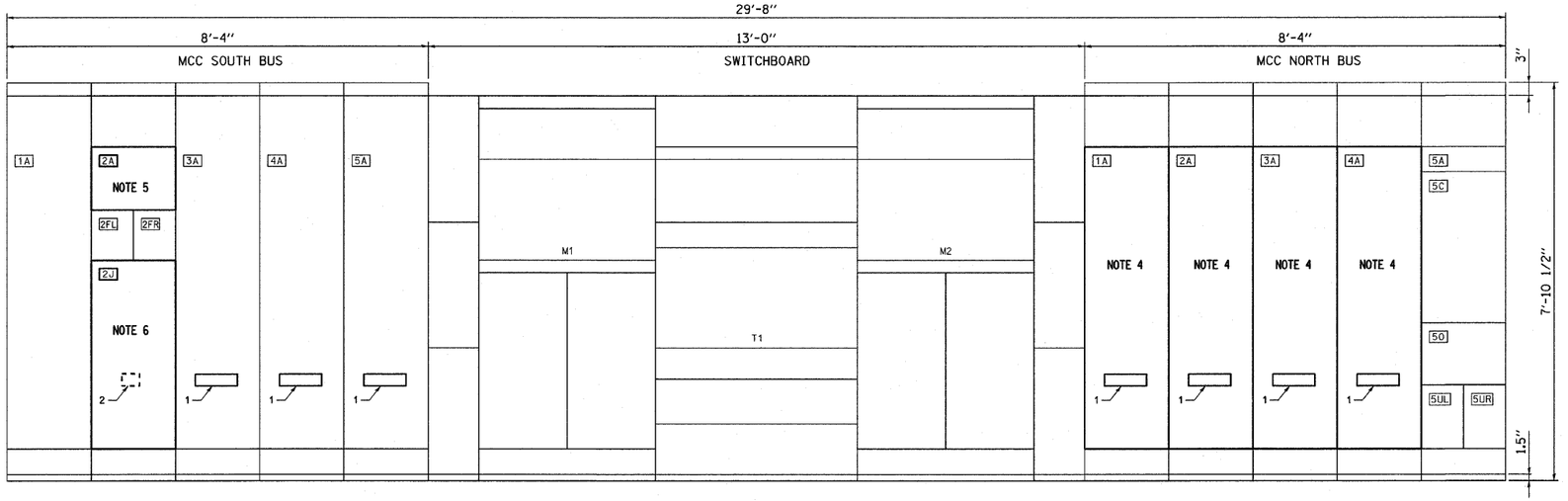
DRAWN BY: B.K.
CHECKED BY: M.Z.

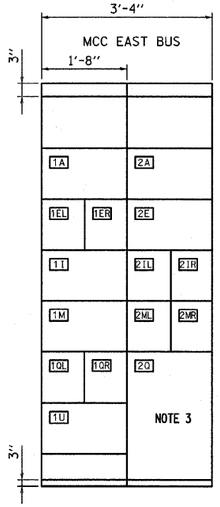
PLOT DATE = 3/22/2010
FILE NAME = I:\SB\828-ah\e-E-E03A.dgn
PLOT SCALE = 1.0
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	46
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99

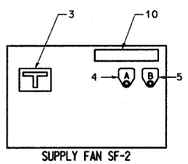




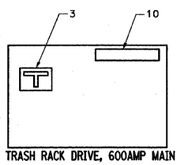
NOTES:

1. NEW MCC COMPARTMENTS SHOWN IN BOLD LINES.
2. SIZE OF DRAW DOWN PUMP CAN NOT EXCEED 30 HP.
3. FVNR STARTER FOR DRAW DOWN PUMP LOCATED IN THE EXISTING COMPARTMENT 2N OF SOUTH SECTION MCC SHOULD BE RELOCATED INTO COMPARTMENT 2Q OF THE EAST SECTION. EXISTING CONDUIT AND CABLE SHALL BE REMOVED.
4. THE STARTERS IN COMPARTMENTS 1A, 2A, 3A & 4A OF THE NORTH SECTION MCC SHALL BE MODIFIED TO MAKE SUITABLE FOR USE WITH 200 HP MOTORS. THIS MAY REQUIRE BUT IS NOT LIMITED TO CHANGING THE CIRCUIT BREAKERS, BUS TO STARTER CONNECTIONS AND VERTICAL BUS TO 400A.
5. CONTRACTOR SHALL REMOVE EXISTING SOUTH BLOWER STARTER, BREAKER, AND CUBICLE DOOR. CONDUIT AND CABLE SHALL ALSO BE REMOVED.
6. CONTRACTOR SHALL REMOVE EXISTING SOUTH DUCT HEATERS #1 AND #2 BREAKERS. CONDUIT AND CABLE SHALL ALSO BE REMOVED.

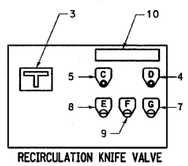
MCC-PS26 FRONT ELEVATION



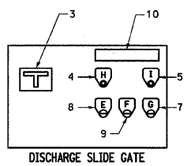
SUPPLY FAN SF-2
(TYPICAL FOR
EXHAUST FAN EF-2)



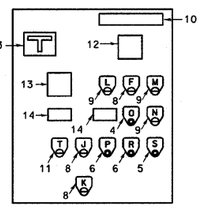
TRASH RACK DRIVE, 600AMP MAIN
LUG SECTION (TYPICAL FOR
JIB CRANE & UNIT HEATERS)



RECIRCULATION KNIFE VALVE
ACTUATOR G-1



DISCHARGE SLIDE GATE
ACTUATOR G-2



LOW FLOW PUMP LFP-1

LEGEND

EXISTING COMPARTMENT

NEW COMPARTMENT

SOUTH BUS SECTION													
UNIT LOC	NAMEPLATE SCHEDULE (ENGRAVING)	UNIT TYPE	STR SIZE	BKR SIZE	HP	KW	VOLTS	PHASE	Hz.	MOT AMP	HTR AMP	WIRE SIZE	CND SIZE
1A	CONTROL PANEL	MT. UNIT	EXISTING (INSTALLED)										
2A	600AMP MAIN LUG SECTION FOR EAST SECTION	BKR	---	200	---	---	---	---	---	---	---	3#4/0 & 1#1/0 GND	2 1/2"
2FL	CONTROL ROOM LTG TR-R (NORMAL SOURCE)	BKR	---	60						EXISTING		4#8	1"
2FR	SPARE	BKR	---	30						EXISTING			
2J	LOW FLOW PUMP LFP-1	FVNR	4	250	75	55	460	3	60	96		3#1/0 & 1#6 GND	2"
3A	MAIN PUMP MP-1	FVNR	5	400	200	150	460	3	60	240		2-3X250 MCM & 1#1/0 GND	3 1/2"
4A	MAIN PUMP MP-2	FVNR	5	400	200	150	460	3	60	240		2-3X250 MCM & 1#1/0 GND	3 1/2"
5A	MAIN PUMP MP-3	FVNR	5	400	200	150	460	3	60	240		2-3X250 MCM & 1#1/0 GND	3 1/2"

NORTH BUS SECTION													
UNIT LOC	NAMEPLATE SCHEDULE (ENGRAVING)	UNIT TYPE	STR SIZE	BKR SIZE	HP	KW	VOLTS	PHASE	Hz.	MOT AMP	HTR AMP	WIRE SIZE	CND SIZE
1A	MAIN PUMP MP-4	FVNR	5	400	200	150	460	3	60	240	---	2-3X250 MCM & 1#1/0 GND	3 1/2"
2A	MAIN PUMP MP-5	FVNR	5	400	200	150	460	3	60	240	---	2-3X250 MCM & 1#1/0 GND	3 1/2"
3A	MAIN PUMP MP-6	FVNR	5	400	200	150	460	3	60	240	---	2-3X250 MCM & 1#1/0 GND	3 1/2"
4A	MAIN PUMP MP-7	FVNR	5	400	200	150	460	3	60	240	---	2-3X250 MCM & 1#1/0 GND	3 1/2"
5A	CONTROL ROOM LTG TR-R (BACK SOURCE)	BKR	---	60	---	---				EXISTING		4#8	1"
5C	60A TRANSFER SWITCH	SW	---	---	---	---				EXISTING		4#8	1"
5O	EXHAUST FAN EF-2 STAIRWELL ROOF	FVNR	1	15	2	---	460	3	60	3.4	---	4#12	3/4"
5UL	SPARE	BKR								EXISTING			
5UR	DRY PIT HEATER	BKR								EXISTING			

NEW EAST BUS SECTION													
UNIT LOC	NAMEPLATE DESIGNATION	UNIT TYPE	STR SIZE	BKR SIZE	HP	KW	VOLTS	PHASE	Hz.	MOT AMP	HTR AMP	WIRE SIZE	CND SIZE
1A	600A MAIN LUGS EAST SECTION	---	---	---	---	---	---	---	---	---	---	3#4/0 & 1#1/0 GND	2 1/2"
1EL	UNIT HEATER UH-1B MCC ROOM	BKR	---	15	---	3	460	3	60	---	4.7	4#12	3/4"
1ER	UNIT HEATER UH-1A MCC ROOM	BKR	---	15	---	3	460	3	60	---	4.7	4#12	3/4"
1I	SUPPLY FAN SF-2 PUMP ROOM	FVNR	1	15	5	---	460	3	60	7.6	---	4#12	3/4"
1M	SPARE	BKR	1	15	---	---	460	3	60	---	---	---	---
1QL	UNIT HEATER UH-2B PUMP ROOM	BKR	---	15	---	5	460	3	60	---	7.9	4#12	3/4"
1QR	UNIT HEATER UH-2A PUMP ROOM	BKR	---	15	---	5	460	3	60	---	7.9	4#12	3/4"
1U	SPACE												
2A	RECIRCULATION KNIFE GATE VLV ACTUATOR G-1	BKR	---	15	2	---	460	3	60	3.4	---	4#12	3/4"
2E	DISCHARGE SLIDE GATE ACTUATOR G-2	BKR	---	15	2	---	460	3	60	3.4	---	4#12	3/4"
2IL	TRASH RACK DRIVE (TR-1)	BKR	---	15	1	---	460	3	60	2.1	---	4#12	3/4"
2IR	UNIT HEATER UH-3 TRASH RACK STAIRWELL	BKR	---	30	---	5	460	3	60	---	7.9	4#12	3/4"
2ML	JIB CRANE TM-1 & HM-1 STAIRWELL	BKR	---	15	1/2 + 1/2	---	460	3	60	2.1	---	4#12	3/4"
2MR	SPARE	BKR	---	15		---	460	3	60		---		
2Q	DRAWDOWN PUMP	FVNR	---	NOTE 3	NOTE 2	---	460	3	6	---	---	4#8	1"

DEVICE LEGEND (DEVICE TO BE INSTALLED)		
ITEM	DEVICE DESCRIPTION	DEVICE COLOR
1	MONITORING AND PROTECTION EQUIPMENT FOR MAIN PUMP (MAPE-1)	---
2	MONITORING AND PROTECTION EQUIP. FOR LOW FLOW PUMP (MINI-MAPE)	---
3	CIRCUIT BREAKER	---
4	INDICATING LIGHT	GREEN
5	INDICATING LIGHT	RED
6	INDICATING LIGHT	YEL
7	PUSH BUTTON	GREEN

DEVICE LEGEND (DEVICE TO BE INSTALLED)		
ITEM	DEVICE DESCRIPTION	DEVICE COLOR
8	PUSHBUTTON	RED
9	PUSHBUTTON	BLACK
10	NAMEPLATE WITH WHITE LETTERING	BLACK
11	3-POSITION SELECTOR SWITCH	GRAY
12	TIMER	---
13	AMMETER	---
14	ELAPSED TIME METER	---
15	ELECTROMECHANICAL COUNTER	---

ITEM	NAME PLATE SCHEDULE
A	FAN ON
B	FAN OFF
C	VALVE OPEN (RECIRCULATION POSITION)
D	VALVE CLOSED (DISHARGE POSITION)
E	OPEN
F	STOP
G	CLOSE
H	GATE OPEN (DISHARGE POSITION)
I	GATE CLOSED (RECIRCULATION POSITION)
J	RESET

ITEM	NAME PLATE SCHEDULE
K	RESET (MOTOR MOISTURE & HI TEMP ALARM)
L	START
M	RUN START
N	MOTOR BUMP
O	MOTOR RUN
P	PUMP CALL
R	MANUAL OPERATION
S	OFF
T	HAND OFF AUTO

PLOT DATE = 3/22/2010
FILE NAME = D1999161-sht-E-04.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

MCC-PS26 ELEVATION

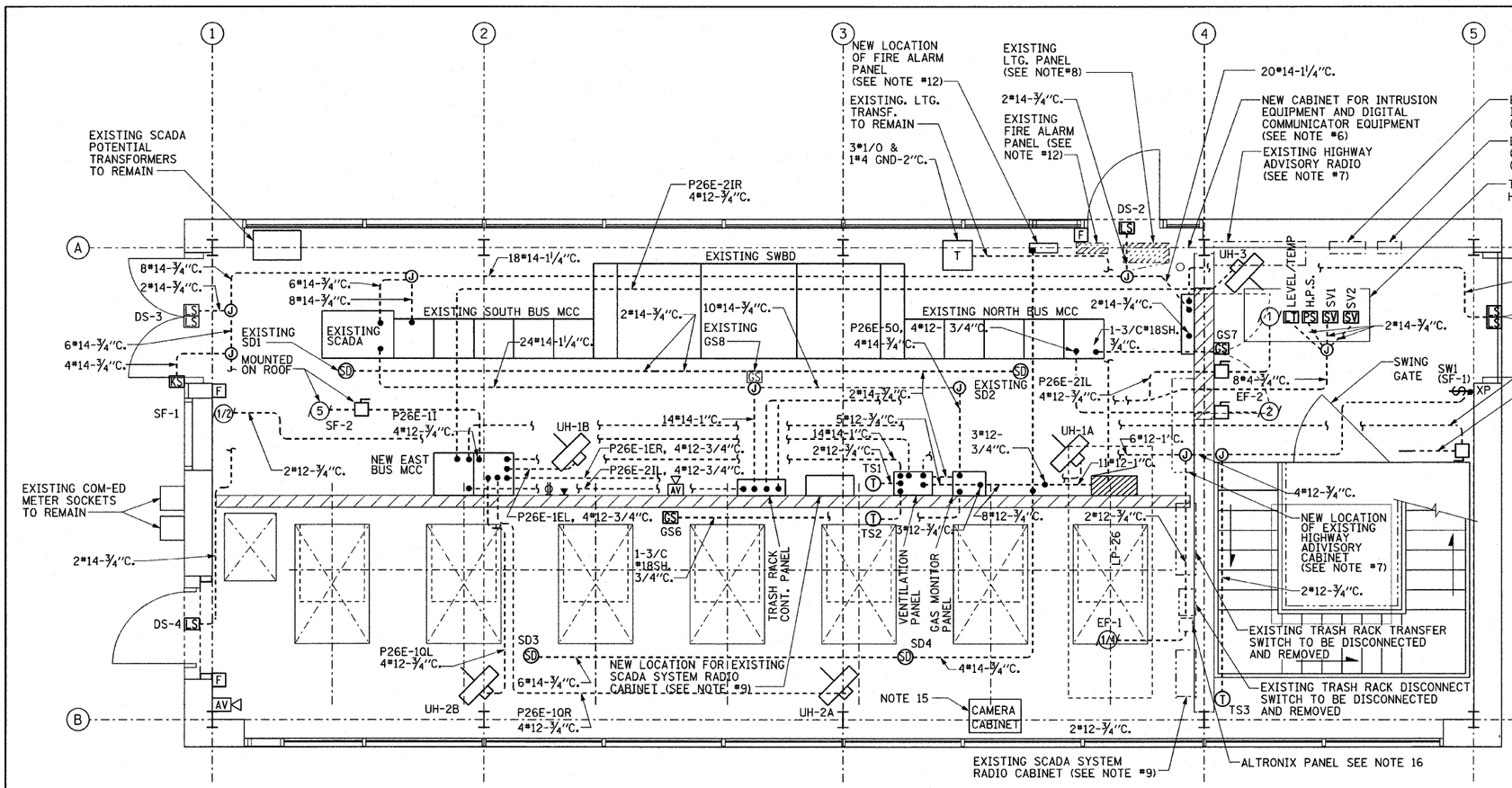
SCALE: VERT. NO SCALE
HORIZ.
DATE: 3/23/2010

DRAWN BY: B.K.
CHECKED BY: M.Z.

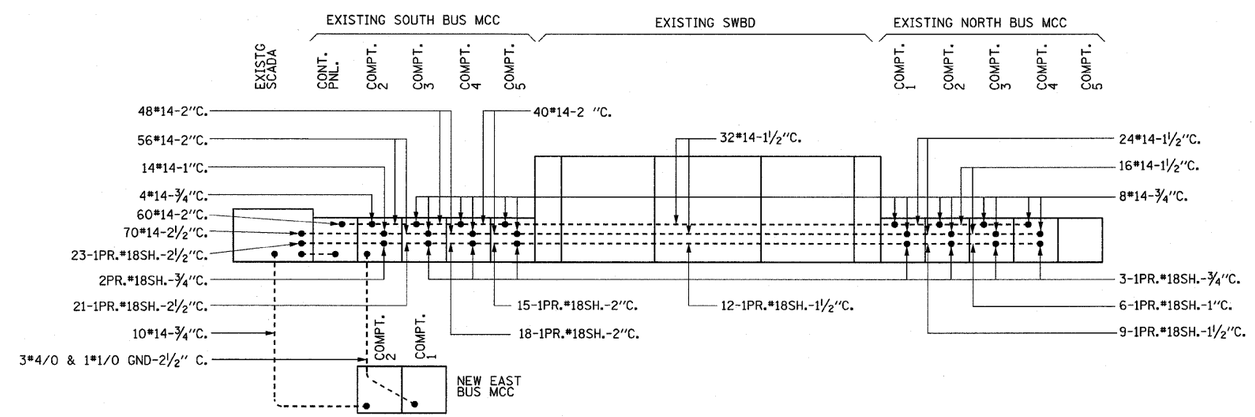
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	47
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



PLAN A-A AT EL.+15'-3"



DETAIL WIRING AMONG MCC'S, CONTROL PANEL & SCADA

2 1 0 2 4 6 — 3/8" = 1'-0"

NOTES:

1. ALL ELECTRICAL INSTALLATIONS EXPOSED TO THE WET PIT ATMOSPHERE, INCLUDING THE STAIRWELLS, SHALL MEET THE REQUIREMENTS OF THE LATEST NEC HAZARDOUS LOCATION FOR CLASS 1, DIVISION 1, GROUP D. THE ELECTRICAL CONTROL ROOM SHALL BE NON-HAZARDOUS.
2. ALL CONTROL CABLES SHALL BE AWG. NO. 14, STRANDED.
3. ALL CONDUIT BOTH EXISTING AND NEW PENETRATIONS THROUGH WALL AND/OR FLOOR SLAB BETWEEN HAZARDOUS AND NON-HAZARDOUS AREAS SHALL BE GROUTED GAS TIGHT.
4. ALL FLOOR AND WALL PENETRATIONS SHALL BE CORE DRILLED AND SEALED WITH NON SHRINK GROUT.
5. "3/C*18SH" REPRESENTS "3 CONDUCTOR *18 SHIELDED CABLE".
6. RELOCATE AND REWIRE EXISTING AEGIS EQUIPMENT AND DIGITAL COMMUNICATOR INTO NEW CABINET ON NORTH WALL OF ELECTRICAL ROOM. CONTRACTOR SHALL ENSURE THAT THE EXISTING AEGIS ALARM SYSTEM IS CONTINUALLY MAINTAINED THROUGHOUT THE PROJECT CONSTRUCTION AND THAT THE SYSTEM IS FUNCTIONING AND COORDINATED WITH THE RELOCATION AT THE END OF THE PROJECT.
7. RELOCATE AND REWIRE THE EXISTING HIGHWAY ADIVISORY RADIO CABINET. 1/2" FOAM DIELECTRIC, POLYETHYLENE JACKETED, FLEXIBLE COAXIAL CABLE SHALL BE UTILIZED FOR DIRECT BURIAL OF ANTENNA FEED LINE AND ANTENNA CONNECTION. SUITABLE CONNECTORS SHALL BE SUPPLIED AND INSTALLED FOR A SECURE CONNECTIONS. (i.e. ANDREW LDF4-50A) RG-8U OR EQUIVALENT FOAM FILLED, COPPER JACKETED, FLEXIBLE CABLE WITH APPROPRIATE CONNECTORS FOR ANTENNA TUNING AND ABOVE SOIL CONNECTIONS. COAXIAL CABLE SHALL BE GROUNDED WITH A #8 WIRE (NOT TO EXCEED 20 FT.) AT THE BUILDING PREMISES AS CLOSE AS POSSIBLE TO THE POINT OF ENTRY.
8. KEEP EXISTING LIGHTING PANEL IN SERVICE UNTIL THE NEW LIGHTING PANEL IS WIRED.
9. RELOCATE AND REWIRE THE EXISTING SCADA SYSTEM RADIO CABINET.
10. REWIRE EXISTING FLOAT SWITCHES TO EXISTING CONTROL PANEL, RUN NEW CONDUITS AND INSTALL A NEW FLOAT TERMINAL BOX TO MEET THE REQUIREMENTS FOR CLASS 1, DIVISION 1, GROUP D LOCATION. FLOAT TERMINAL BOX SHALL BE 12"x12"x6" EXPLOSION PROOF WITH 2-20 POINT TERMINAL BLOCKS. PROVIDE CABLE CONNECTORS FOR EACH EXISTING FLOAT CABLE AND 1 NEW (FOR STANDBY PUMP) ON THE BOTTOM OF THE BOX.
11. ALL SMOKE DETECTORS ARE CEILING MOUNTED. ALL GAS DETECTORS ARE WALL MOUNTED AT 5'-6" ABOVE FLOOR.
12. CONTRACTOR SHALL RELOCATE AND REWIRE THE EXISTING FIRE ALARM CONTROL PANEL.
13. ALL CONDUIT AND FITTINGS INSTALLED BELOW GRADE SHALL BE PVC COATED.
14. ALL CONDUIT AND FITTINGS INSTALLED IN HAZARDOUS AREAS SHALL BE INTRINSICALLY SAFE.
15. CAMERA RACK WILL BE REMOVED BY OTHERS PRIOR TO CONSTRUCTION.
16. THE EXISTING GAS SYSTEM ALTRONIX PANEL IS NOT RATED FOR HAZARDOUS LOCATIONS. ACCORDINGLY, RELOCATE ALTRONIX PANEL TO UNCLASSIFIED WALL SPACE IN MCC ROOM NEXT TO PROPOSED GAS MONITOR PANEL, AND PROVIDE 120VAC POWER TO THE ALTRONIX WALL TRANSFORMER FROM THE GAS MONITOR PANEL'S 120VAC CIRCUIT. EXTEND THE WIRING FROM THE EXISTING ULTIMA X3 TRANSMITTER BACK TO THE NEW LOCATION OF THE ALTRONIX PANEL. ALTERNATIVELY TO THE ABOVE, THE GAS SYSTEM VENDOR AND SUBCONTRACTOR MAY AT HIS OPTION DEMO THE ALTRONIX PANEL AND EXISTING ULTIMA X3 ENTIRELY, AND PROVIDE A NEW TRANSMITTER AND INTEGRAL POWER SUPPLY FOR EXISTING GAS SENSORS GS1 AND GS8. IN EITHER CASE, CONTRACTOR SHALL ALSO DEMO THE 120VAC RECEPTACLE AND CONDUIT LABELED "CKT 27" BACK TO THE LIGHTING PANEL.

REVISIONS NAME	DATE

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

ILLINOIS DEPARTMENT OF TRANSPORTATION

ELECTRICAL CONDUIT PLAN – SHEET 1

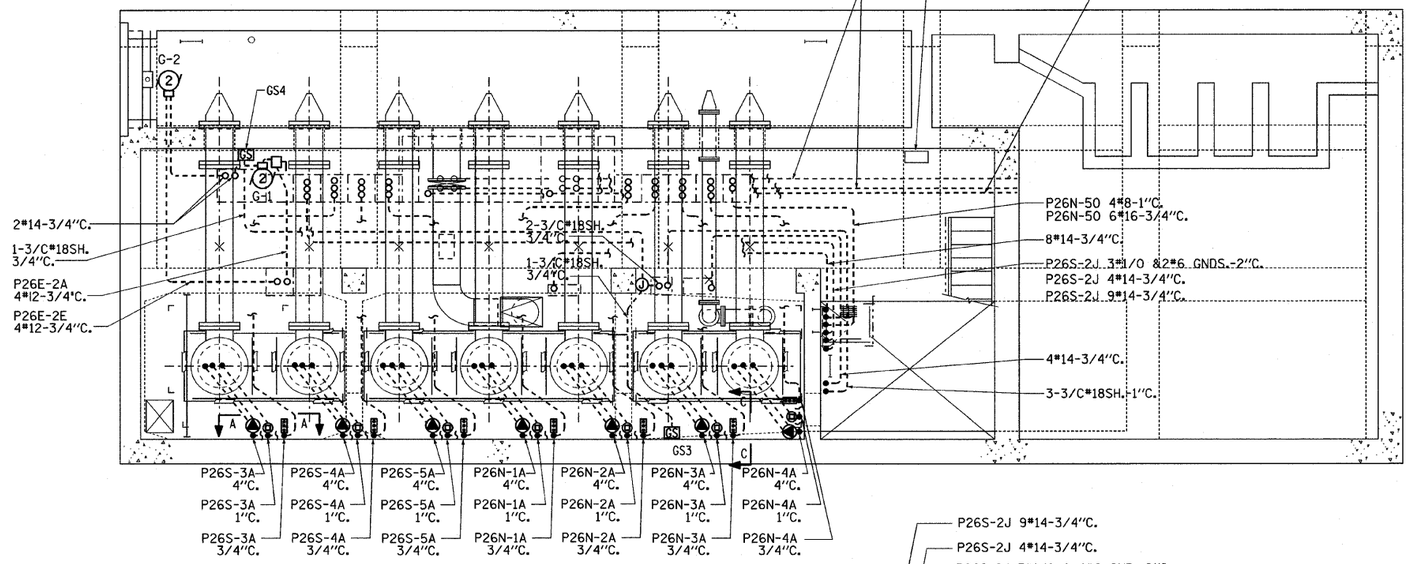
SCALE: VERT. 3/8"=1'-0" HORIZ.
DATE: 3/23/2010
DRAWN BY: B.K.
CHECKED BY: M.Z.

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-Sht-E-005.dgn
PLOT SCALE = 12.88667
USER NAME = *USER*

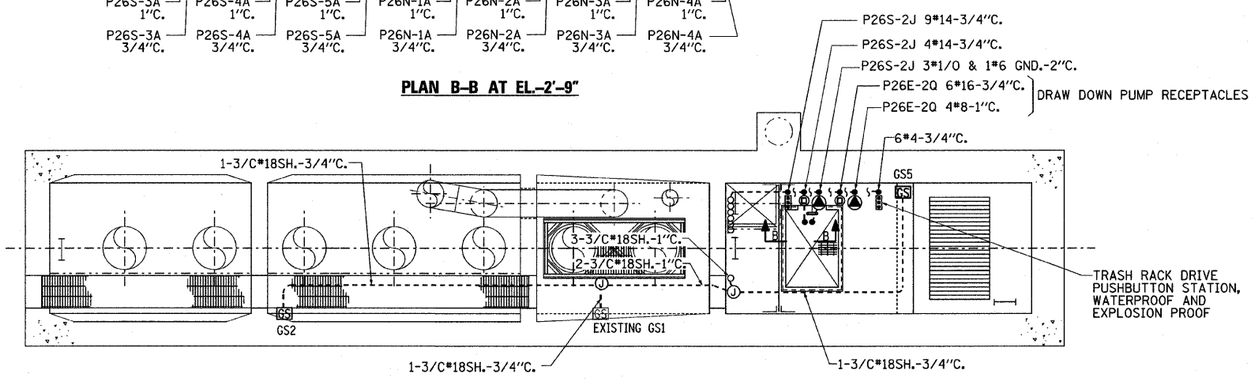
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	48
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

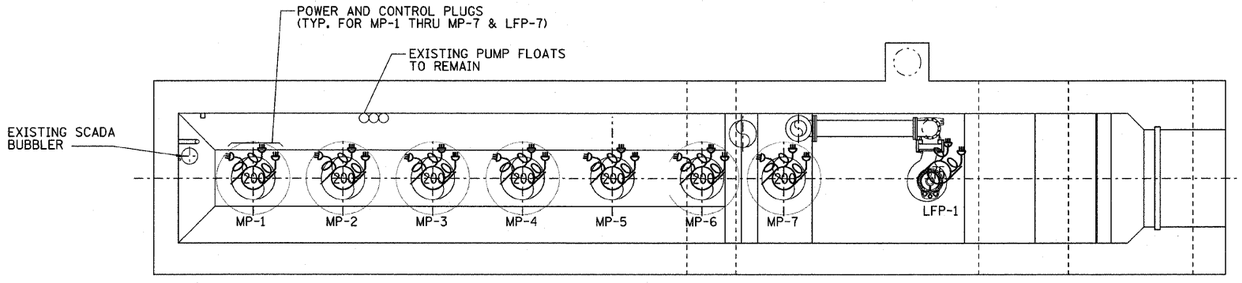
D-91-411-99



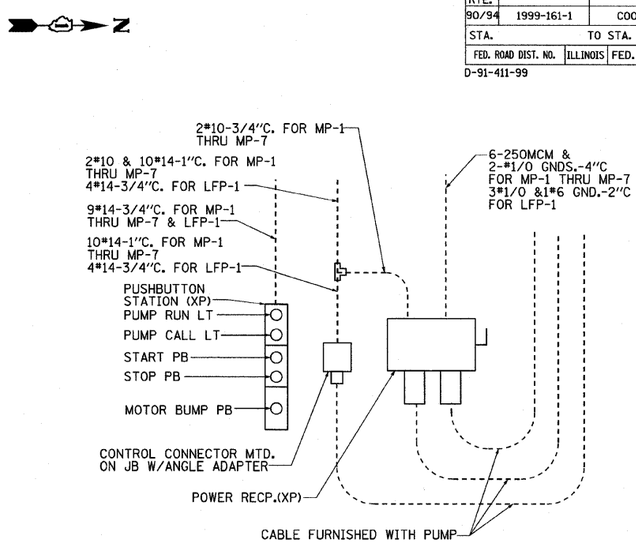
PLAN B–B AT EL.–2'–9"



PLAN C–C AT EL.–20'–9"

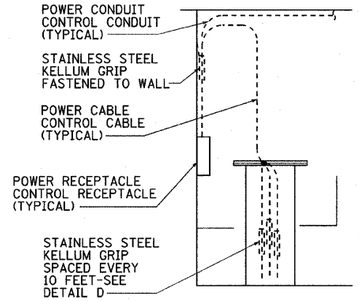


PLAN D–D AT EL.–42'–3"

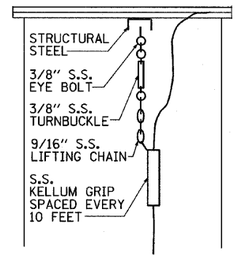


SECTION A–A

SECTION B–B(SIMILAR)



SECTION C–C



DETAIL D

NOTES:

1. CONTRACTOR SHALL REPLACE EXISTING TELEPHONE CABINET WITH A NEW CABINET THAT HAS A NEMA TYPE 6 ENCLOSURE.
2. FOR ADDITIONAL NOTES SEE DWG. E-5

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001633

ILLINOIS DEPARTMENT OF TRANSPORTATION

ELECTRICAL CONDUIT PLANS – SHEET 2

SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010
DRAWN BY: B.K.
CHECKED BY: M.Z.

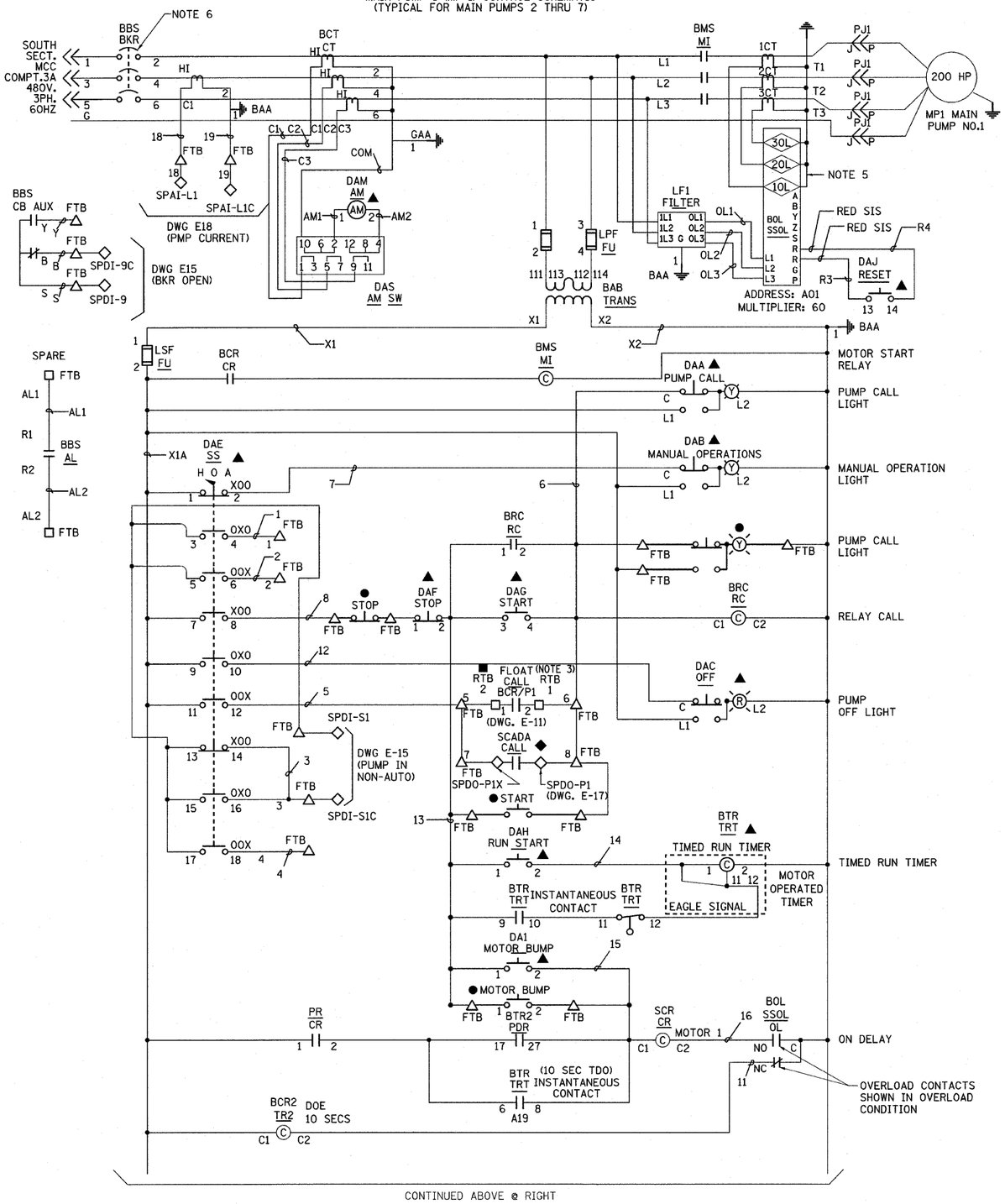
PLOT DATE = 3/22/2010
FILE NAME = D:\82829-04\t-E-05.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

CONTRACT NO. 60828

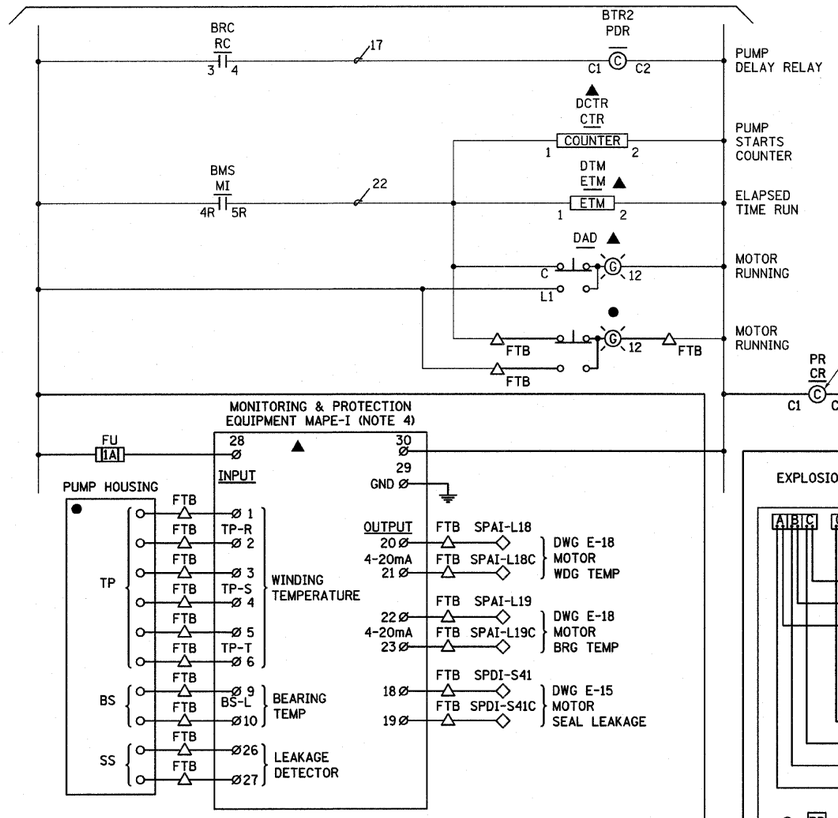
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	49
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

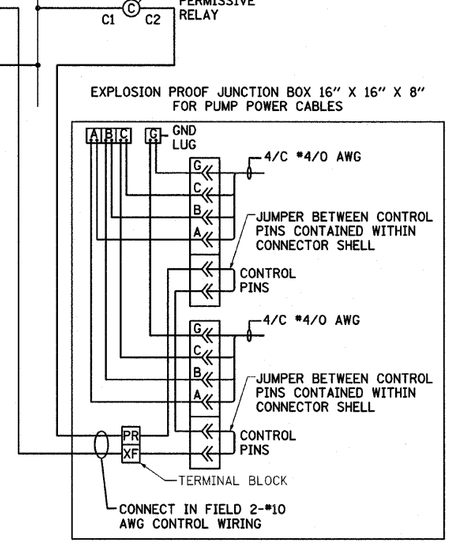
D-91-411-99

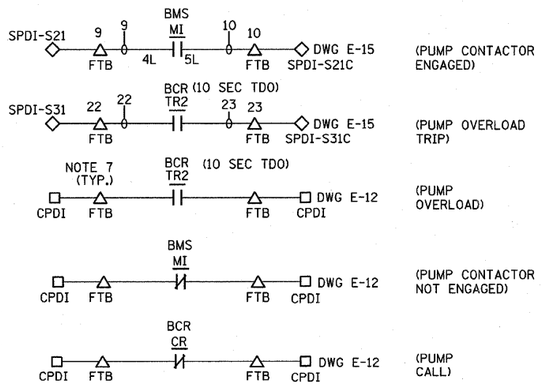
MAIN PUMP 1 (MP-1) CONTROL SCHEMATIC
(TYPICAL FOR MAIN PUMPS 2 THRU 7)



CONTINUED BELOW @ LEFT







LEGEND:

- ◇ TERMINAL IN SCADA PANEL
- △ TERMINAL IN MOTOR STARTER
- □ TERMINAL IN CONTROL PANEL
- ⌀ TERMINAL IN MAPE-I
- ● DEVICE LOCALLY MOUNTED
- ▲ DEVICE LOCATED ON MCC COMPARTMENT DOOR
- ◆ DEVICE IN SCADA PANEL
- ■ DEVICE IN CONTROL PANEL

NOTES:

1. ALL DEVICES TO BE INSTALLED AND CHANGES TO BE MADE SHOWN IN BOLD.
2. ALL DEVICES MOUNTED IN MOTOR STARTER UNLESS OTHERWISE NOTED.
3. THE EXISTING CONTROL FOR LOW FLOW PUMP (NORTH MCC SECTION, COMP. 4A) WILL BE USED FOR NEW MAIN PUMP 7. "FLOAT CALL" FOR MP-7 SHALL BE REWIRED ACCORDING TO UPGRADED SCHEMATIC FOR CONTROL PANEL.
4. COORDINATE MONITORING & PROTECTION EQUIPMENT WITH PUMP MANUFACTURER.
5. THE EXISTING OVERLOAD RELAYS SHALL BE REVISED AND IF NECESSARY REPLACED.
6. THE EXISTING 250AMPS BREAKERS FOR PUMPS MP-4, MP-5, MP-6 & MP-7 IN COMPARTMENTS 1A, 2A, 3A, & 4A OF NORTH MCC SECTION SHALL BE REPLACED WITH 400AMPS BREAKERS.
7. NEW TERMINAL SHALL BE ASSIGNED BY THE CONTRACTOR.

REVISIONS NAME	DATE

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

ILLINOIS DEPARTMENT OF TRANSPORTATION

MAIN PUMP MP-1
CONTROL SCHEMATIC

SCALE: VERT. NO SCALE
HORIZ.
DATE: 3/23/2010

DRAWN BY: B.K.
CHECKED BY: M.Z.

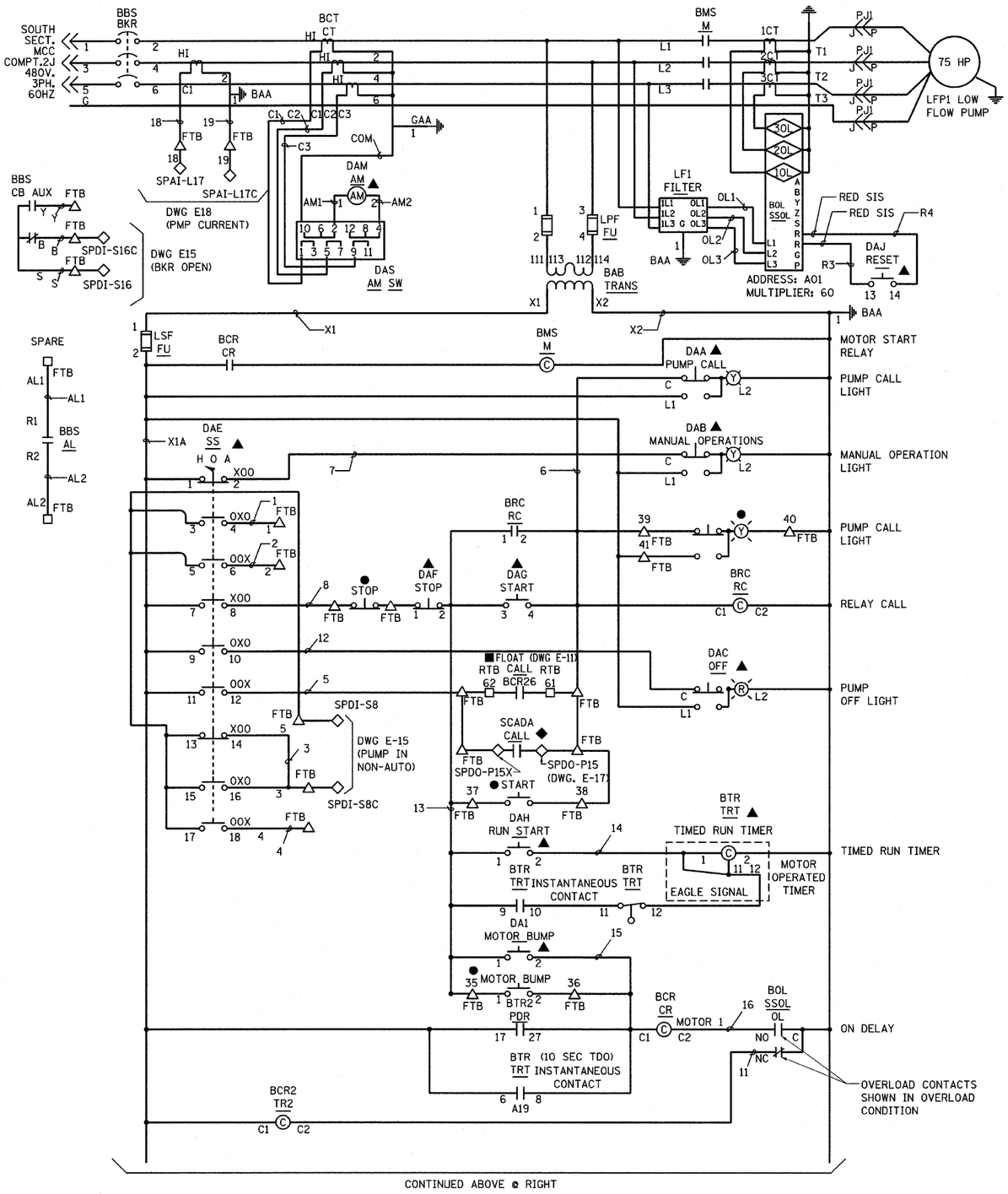
PLOT DATE = 3/22/2010
FILE NAME = D:\60828-sht-E-07.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

CONTRACT NO. 60828

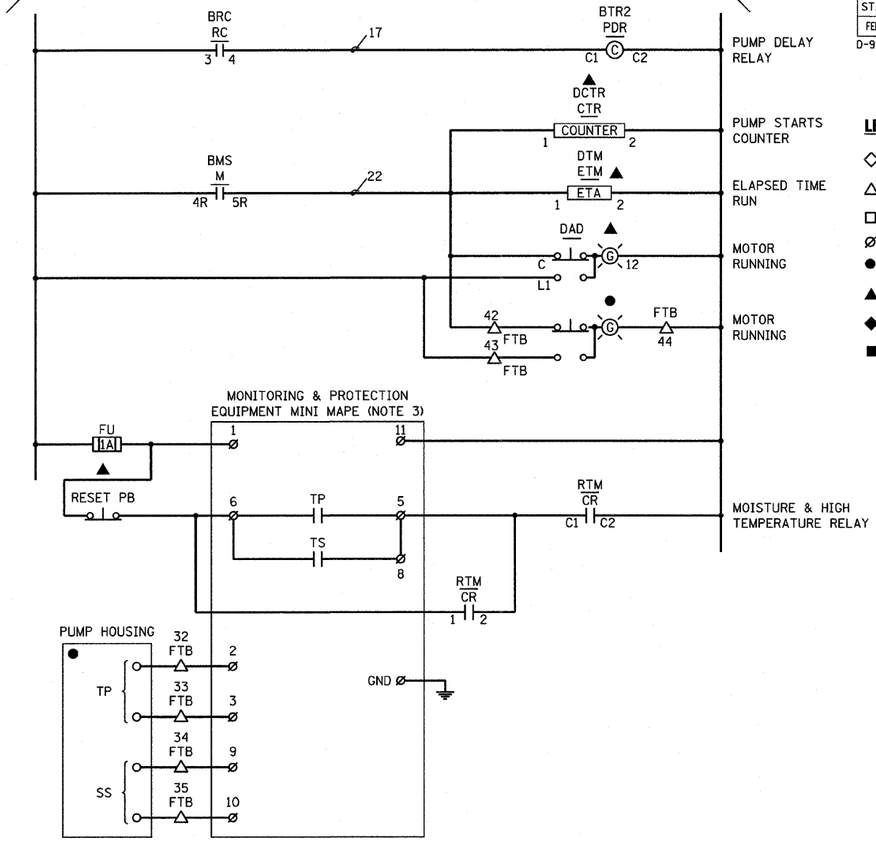
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	50
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99

LOW FLOW PUMP (LFP-1) CONTROL SCHEMATIC

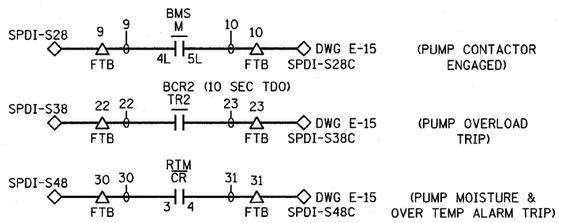


CONTINUED BELOW @ LEFT



LEGEND:

- ◇ TERMINAL IN SCADA PANEL
- △ TERMINAL IN MOTOR STARTER
- □ TERMINAL IN CONTROL PANEL
- ⌀ TERMINAL IN MINI-MAPE
- ● DEVICE LOCALLY MOUNTED
- ▲ DEVICE LOCATED ON MCC COMPARTMENT DOOR
- ◆ DEVICE IN SCADA PANEL
- ■ DEVICE IN CONTROL PANEL



NOTES:

1. NEW STARTER, CONTROL RELAYS, TERMINAL BLOCKS & ASSOCIATED WIRING FOR LFP-1 PUMP SHALL BE INSTALLED IN MCC.
2. ALL DEVICES MOUNTED IN MOTOR STARTER UNLESS OTHERWISE NOTED.
3. COORDINATE MONITORING & PROTECTION EQUIPMENT WITH PUMP MANUFACTURER.

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

ILLINOIS DEPARTMENT OF TRANSPORTATION

LOW FLOW PUMP LFP-1 CONTROL SCHEMATIC

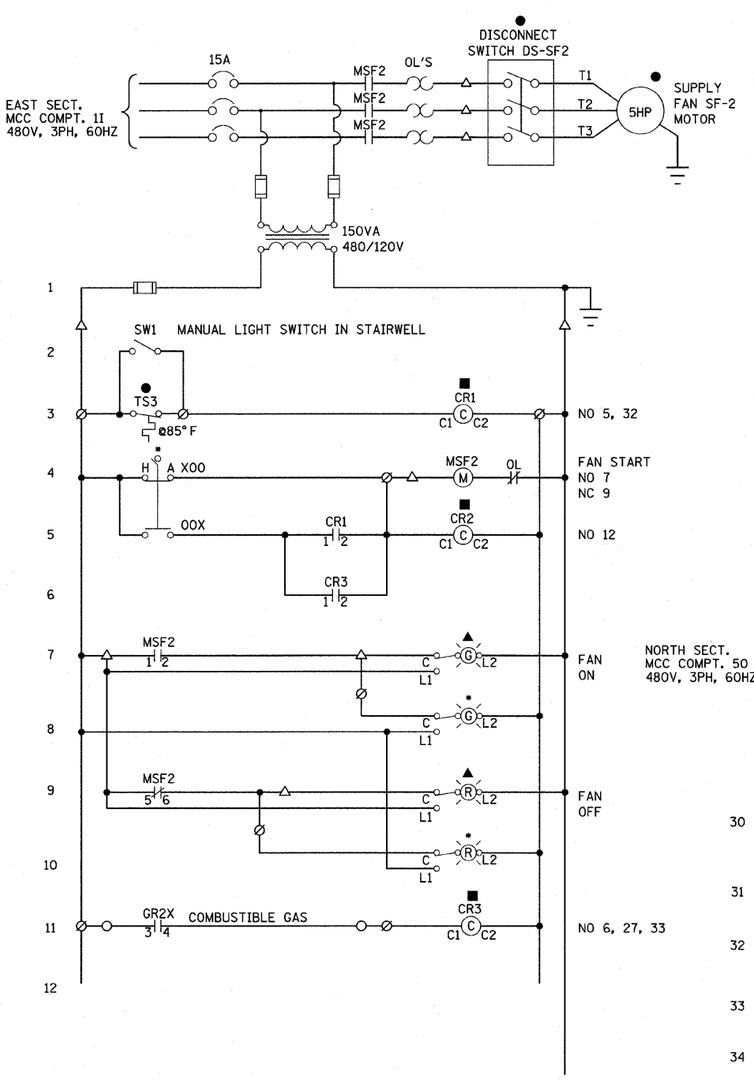
SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010
DRAWN BY: B.K.
CHECKED BY: M.Z.

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-sht-E-08.dgn
PLOT SCALE = 1.0000 '/ IN.
USER NAME = #USER#

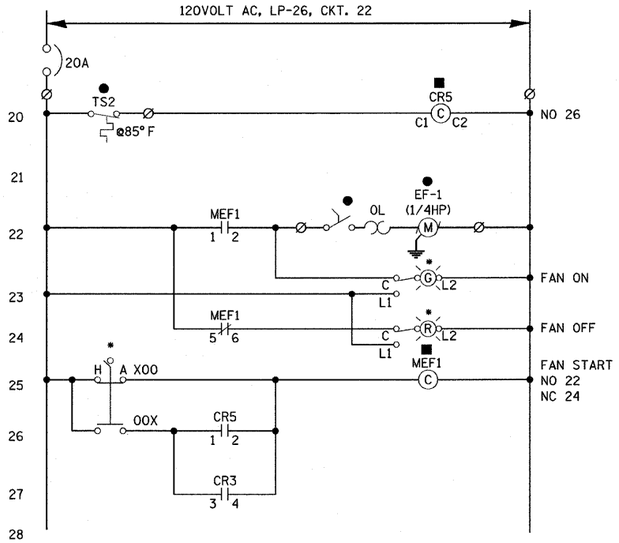
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	51
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

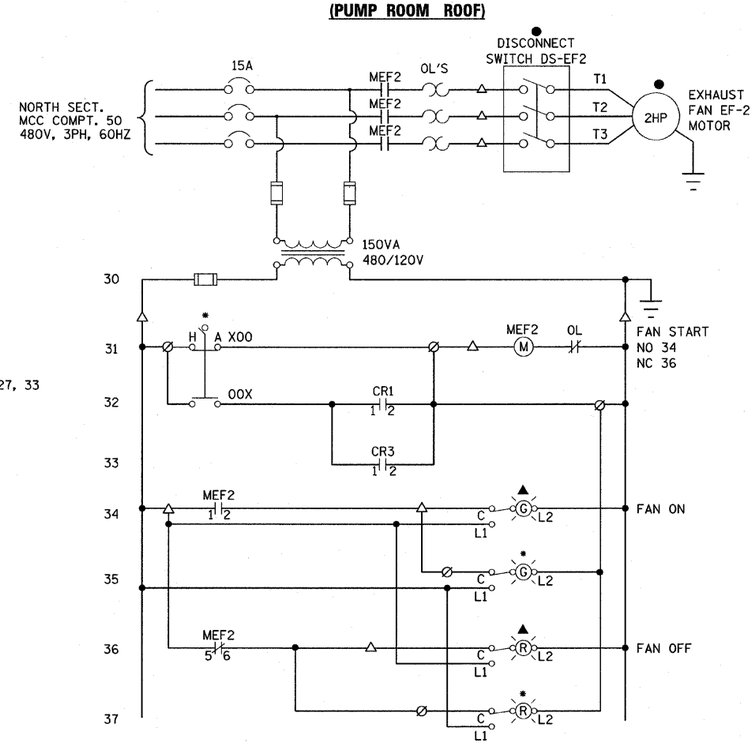
D-91-411-99



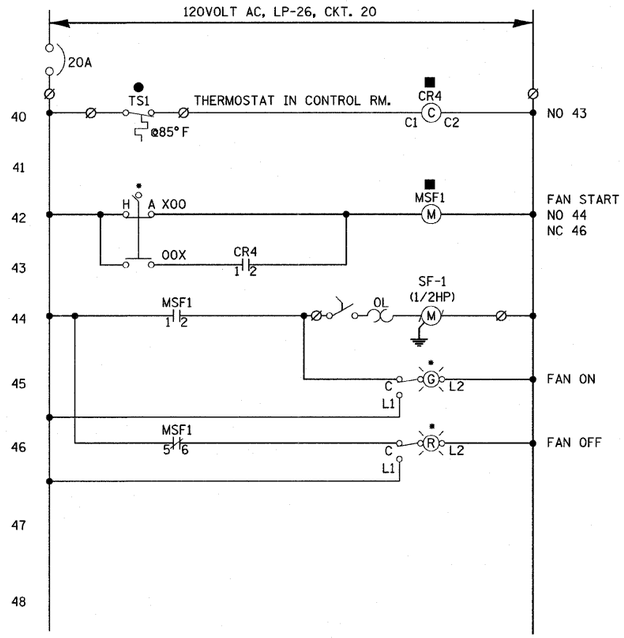
LOWER LEVEL AND WET WELL SUPPLY FAN SF-2
(PUMP ROOM ROOF)



PUMP ROOM EXHAUST FAN EF-1
(PUMP ROOM ROOF)



LOWER LEVEL AND WET WELL EXHAUST FAN EF-2
(STAIRWELL ROOF)



MCC ROOM SUPPLY FAN SF-1
(MCC ROOM WALL)

NOTES:

1. VENTILATION PANEL LOCATED ON THE EAST WALL IN MCC ROOM.
2. ALL DEVICES MOUNTED IN MOTOR CONTROL CENTER UNLESS NOTED OTHERWISE.

LEGEND:

- △ TERMINAL IN MOTOR CONTROL CENTER
- ▲ DEVICE LOCATED ON MOTOR STARTER DOOR
- ○ TERMINAL IN GAS MONITOR PANEL
- Ø TEMINAL IN VENTILATION PANEL
- ● DEVICE MOUNTED LOCALLY
- ■ DEVICE LOCATED IN VENTILATION PANEL
- * DEVICE LOCATED ON VENTILATION PANEL DOOR

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-sht-E-09.dgn
PLOT SCALE = 1:1
USER NAME = #USER#

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No. 184-000533

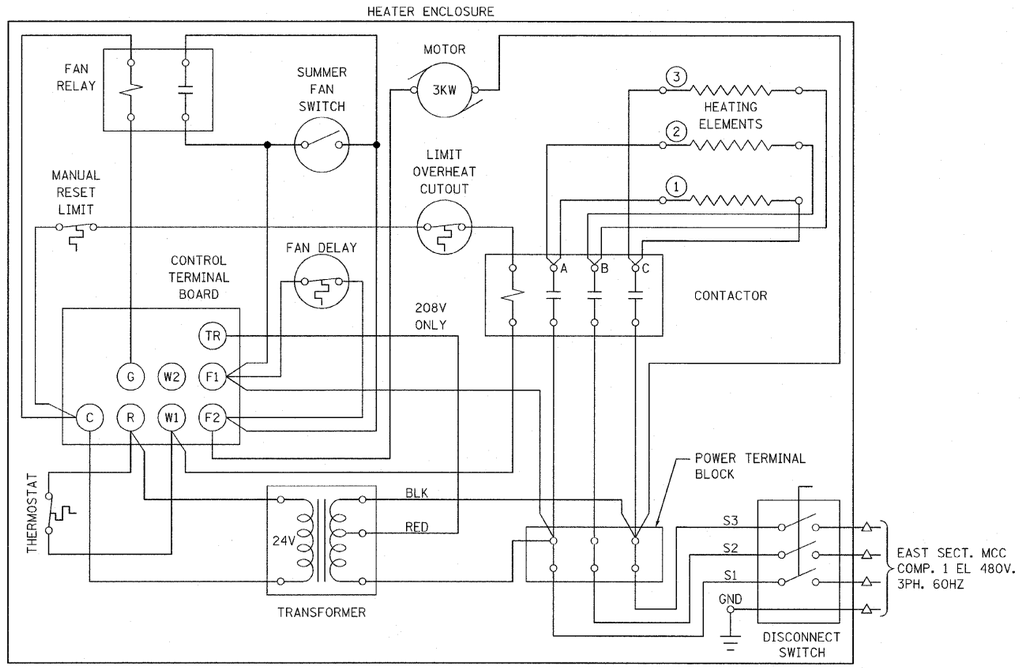
ILLINOIS DEPARTMENT OF TRANSPORTATION

VENTILATION SYSTEM CONTROL SCHEMATICS – SHEET 1

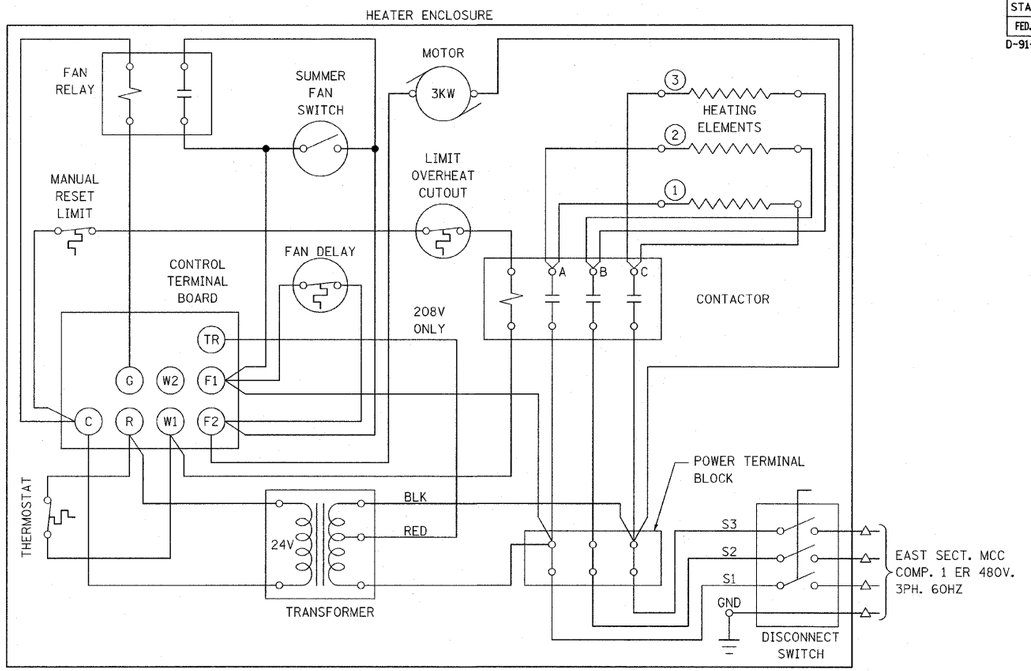
SCALE: VERT. HORIZ. NO SCALE
DATE: 3/23/2010
DRAWN BY: B.K.
CHECKED BY: M.Z.

CONTRACT NO. 60828

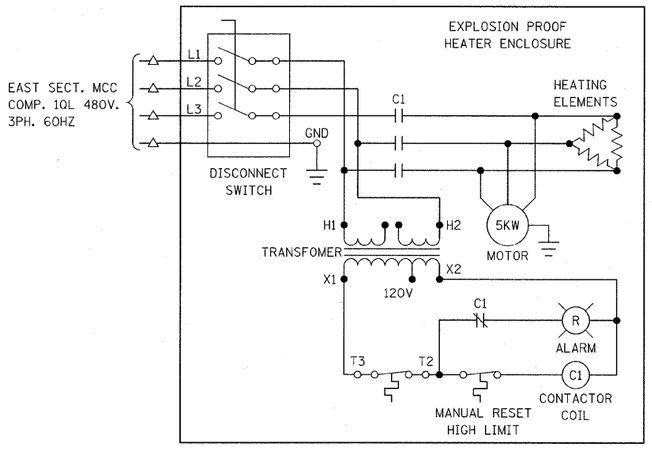
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	52
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
D-91-411-99				



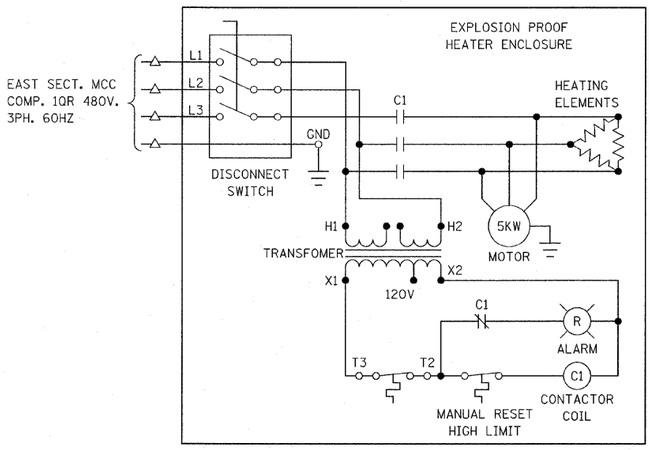
MCC ROOM UNIT HEATER UH-1B



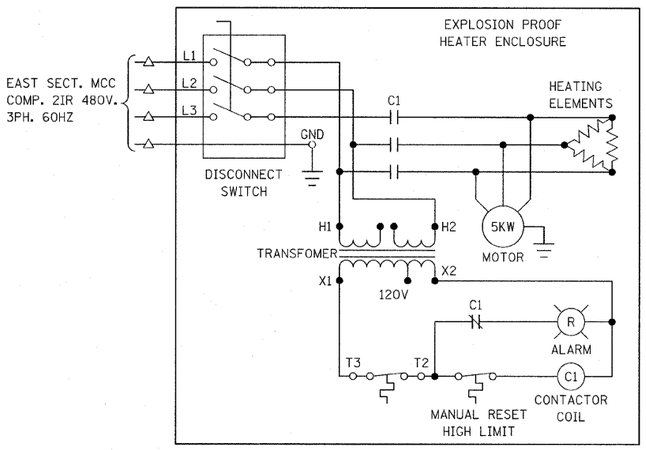
MCC ROOM UNIT HEATER UH-1A



PUMP ROOM HEATER UH-2B



PUMP ROOM HEATER UH-2A



TRASH RACK STAIRWELL HEATER UH-3

LEGEND:

△ TERMINAL LOCATED IN MCC

○ TERMINAL LOCATED IN HEATER ENCLOSURE

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

ILLINOIS DEPARTMENT OF TRANSPORTATION

VENTILATION SYSTEM CONTROL SCHEMATICS – SHEET 2

SCALE: VERT. NO SCALE HORIZ.

DATE: 3/23/2010

DRAWN BY: B.K.

CHECKED BY: M.Z.

PLOT DATE = 3/23/2010
FILE NAME = D:\60828-sht-E-1B.dgn
PLOT SCALE = 1.0
USER NAME = #USER#

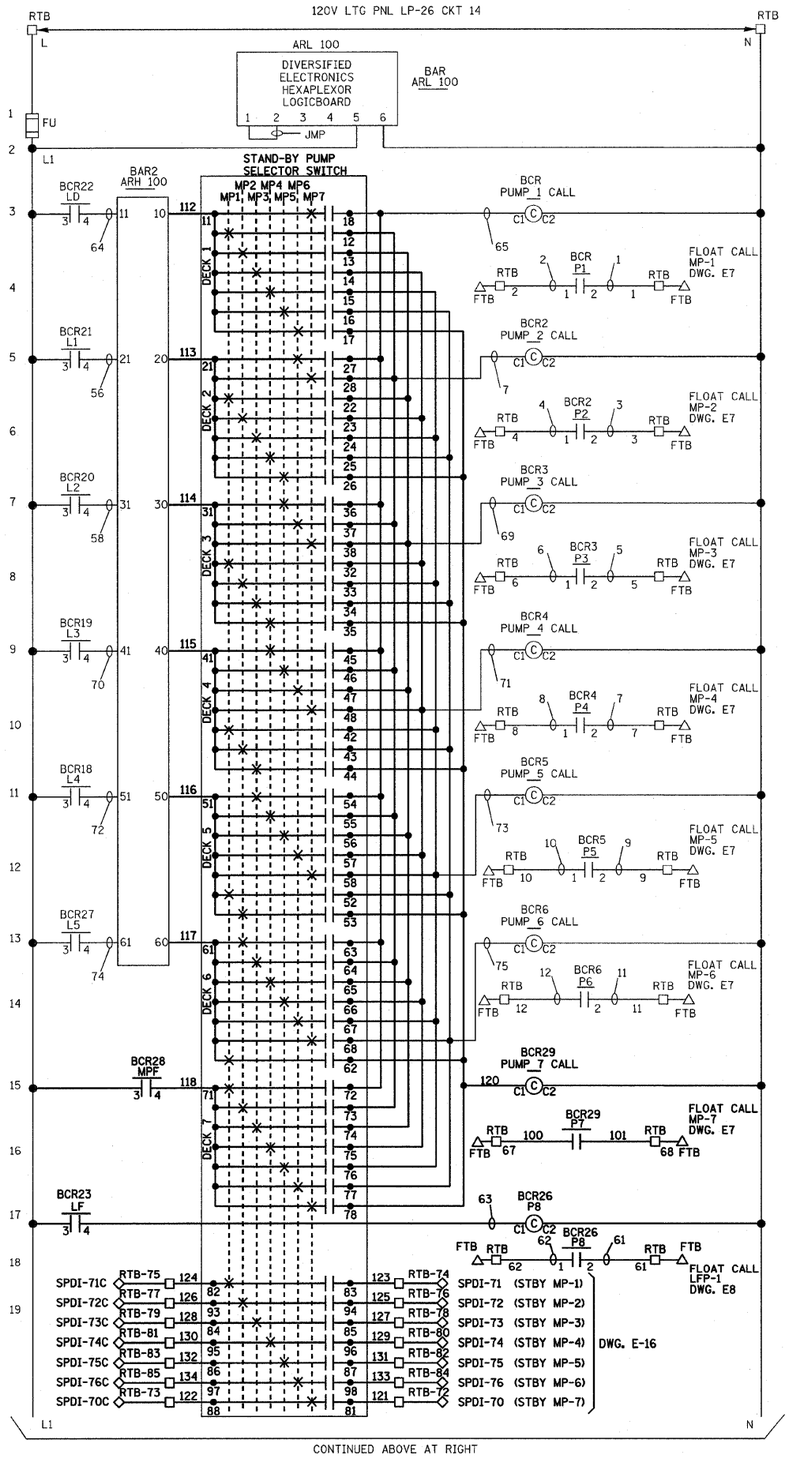
CONTRACT NO. 60828

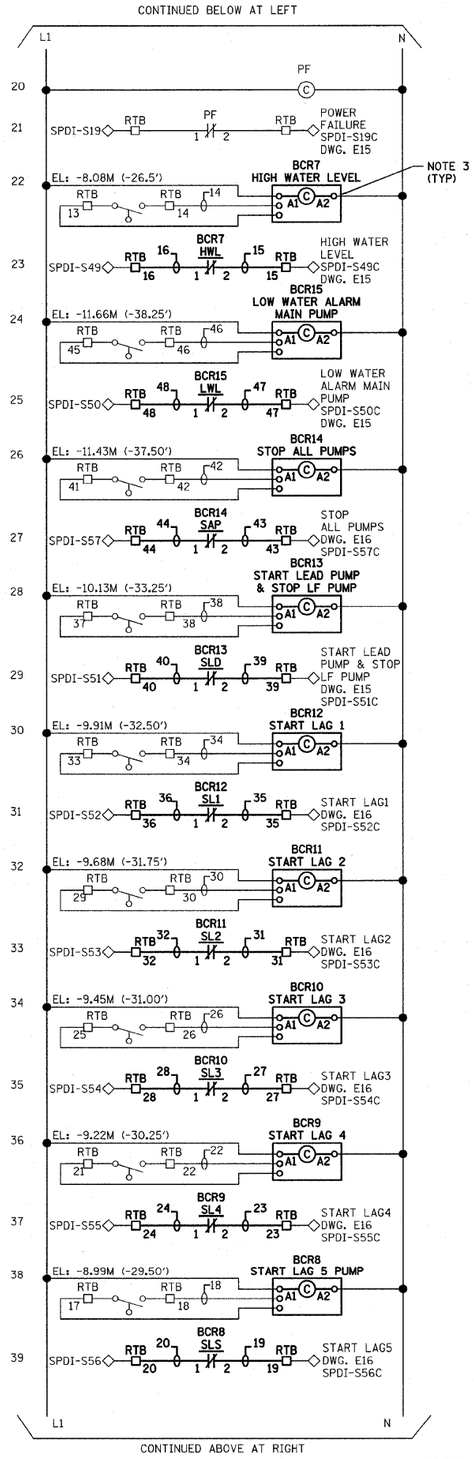
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	53
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

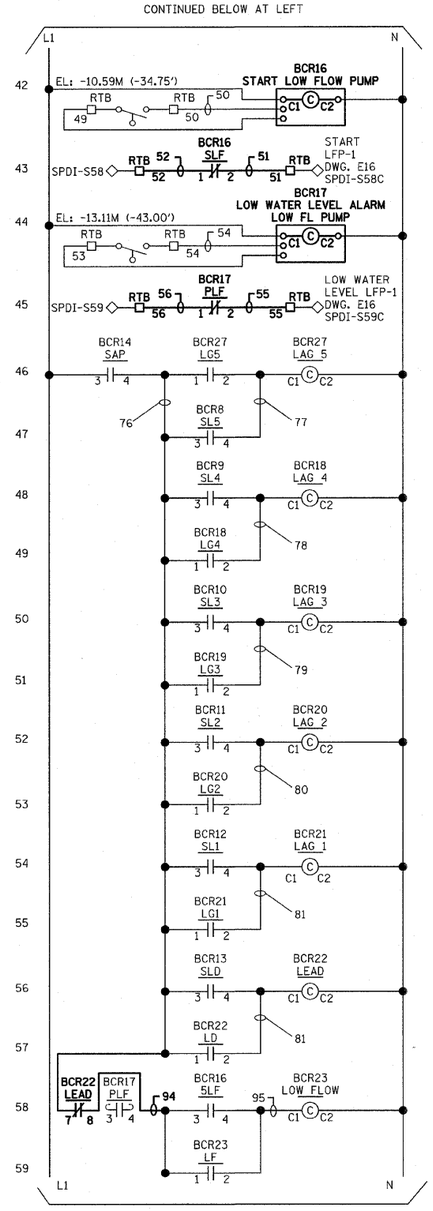
D-91-411-99

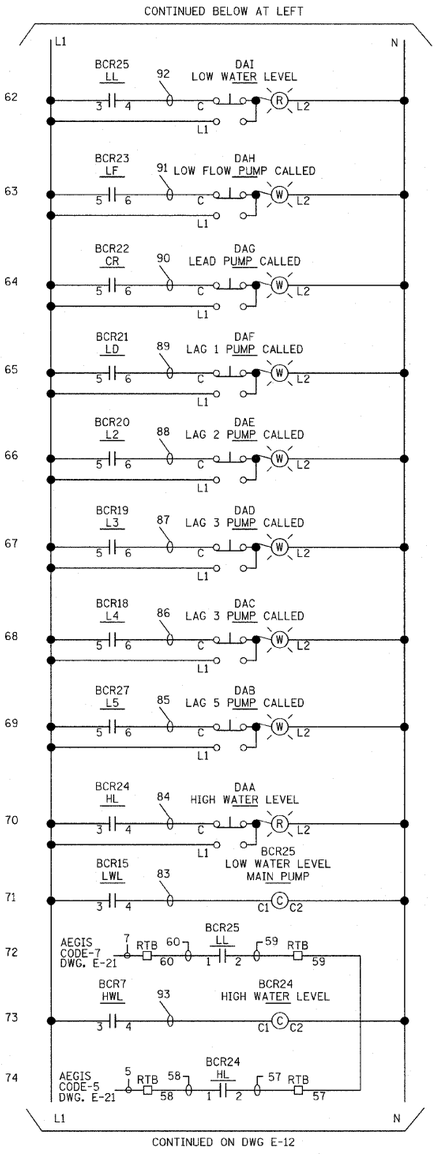
NOTES:

1. FOR LEGEND SEE DWG. E-12.
2. ALL DEVICES TO BE INSTALLED AND CHANGES TO BE MADE ARE BOLD.
3. EXISTING RELAYS BCR7 THRU BCR17 MUST BE REPLACED BY INSTRINSICALLY SAFE BARRIER RELAYS.









PLOT DATE = 3/22/2010
FILE NAME = D:\60828-ant-E-11.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

ILLINOIS DEPARTMENT OF TRANSPORTATION

CONTROL PANEL SCHEMATIC – SHEET 1

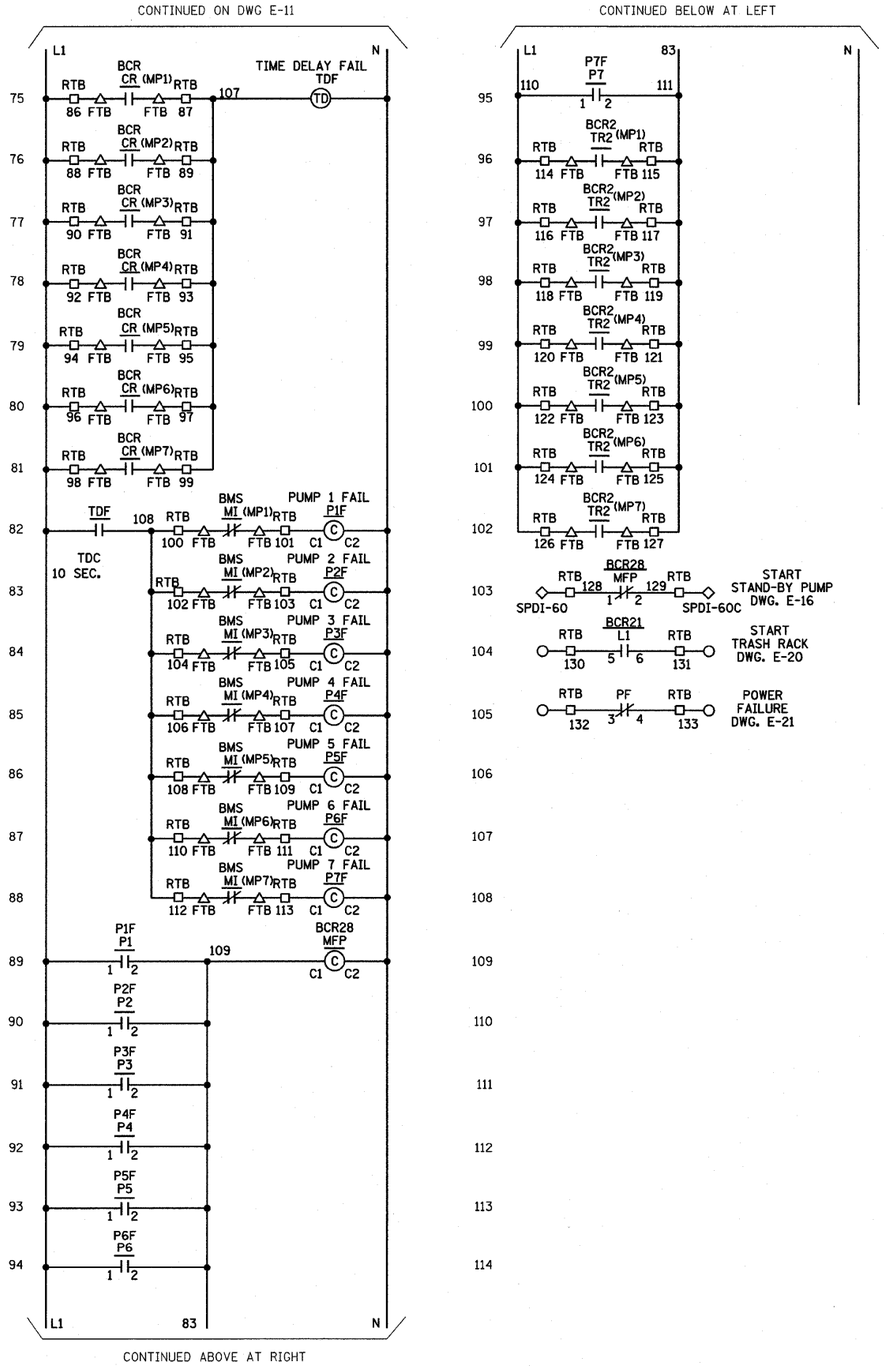
SCALE: VERT. NO SCALE
HORIZ.
DATE: 3/23/2010

DRAWN BY: B.K.
CHECKED BY: M.Z.

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	54
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



		POSITION ENGRAVING							
			MAIN PUMP 1	MAIN PUMP 2	MAIN PUMP 3	MAIN PUMP 4	MAIN PUMP 5	MAIN PUMP 6	MAIN PUMP 7
DECK	CONTACTS	POSITIONS							
		1	2	3	4	5	6	7	8
1	11								
	12		X						
	13			X					
	14				X				
	15					X			
	16						X		
	17							X	
	18								X
	DECKS 2 THRU 7 SAME AS DECK 1 EXCEPT TERMINAL NUMBERS								
8	81	X							
	82		X						
	83			X					
	84				X				
	85					X			
	86						X		
	87							X	
	88								X
	81								
	DECKS 9 SAME AS DECK 8 EXCEPT TERMINAL NUMBERS								

STAND-BY PUMP
SELECTOR SWITCH DEVELOPMENT
SEE DWG E-11

LEGEND:

- ◇ TERMINAL IN SCADA PANEL
- △ TERMINAL IN MOTOR STARTER
- □ TERMINAL IN CONTROL PANEL
- ○ TERMINAL IN TRASH RACK PANEL AND IN DIGITAL DAILER CABINET

NOTES:

1. ALL DEVICES TO BE INSTALLED AND CHANGES TO BE MADE IN CONTROL PANEL SHOWN IN BOLD.

PLOT DATE = 3/22/2010
FILE NAME = U:\BRIDGE\dwg\e-12.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-000533

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

CONTROL PANEL SCHEMATIC – SHEET 2

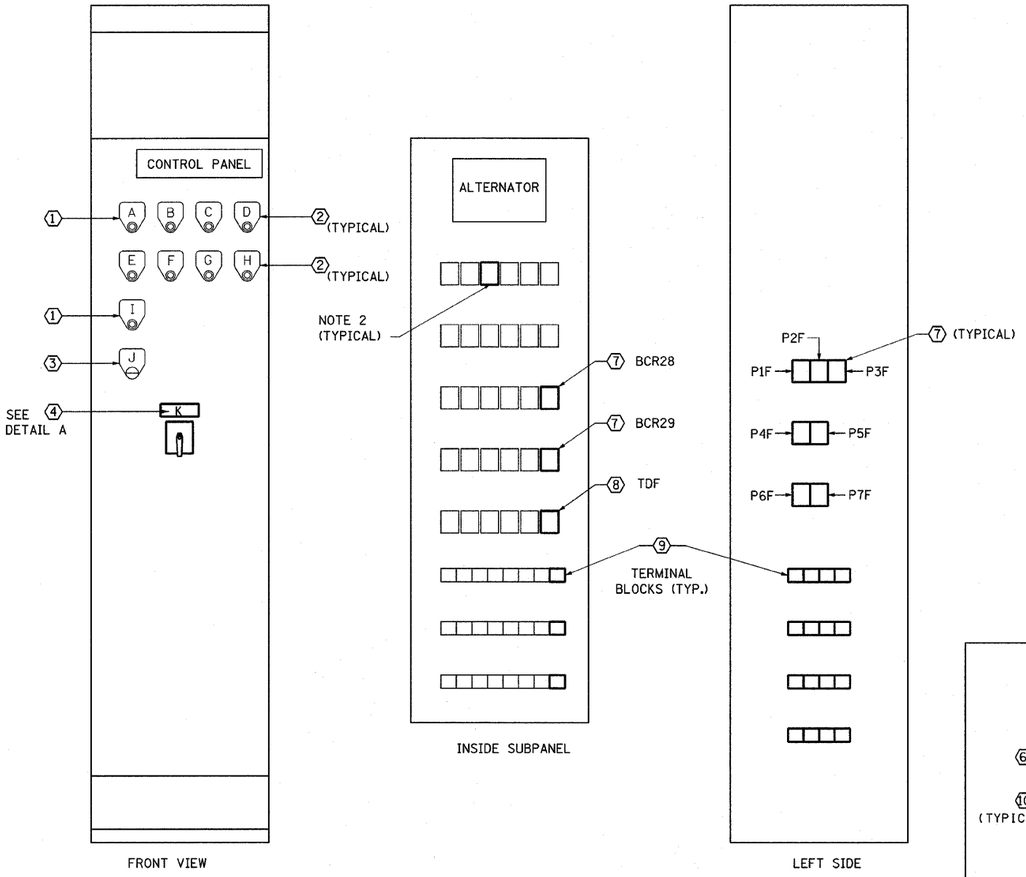
SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010

DRAWN BY: B.K.
CHECKED BY: M.Z.

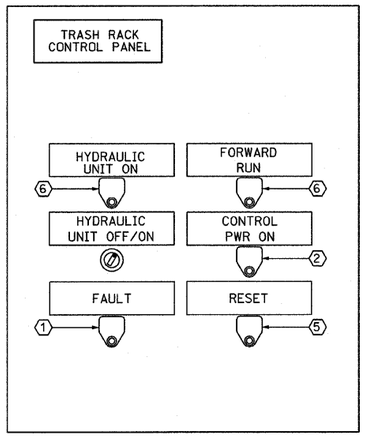
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	55
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



CONTROL PANEL

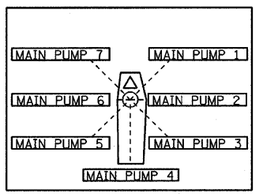


FRONT VIEW

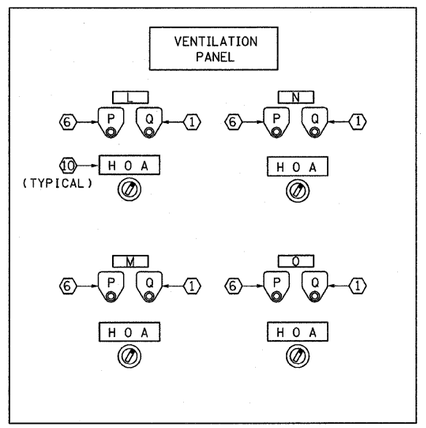
TRASH RACK CONTROL PANEL

TO BE SUPPLIED WITH TRASH RACK

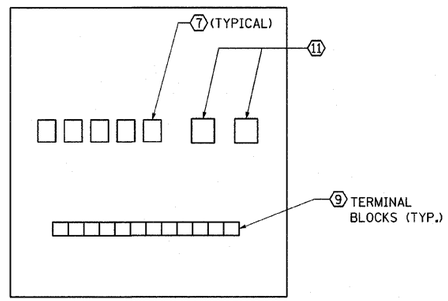
DEVICE LEGEND ⊙		
ITEM	**DEVICE DESCRIPTION**	**DEVICE COLOR**
1	INDICATING LIGHT	RED
2	INDICATING LIGHT	WHITE
3	PUSH BUTTON	YELLOW
4	7 POSITION SELECTOR SWITCH	BLACK
5	PUSHBUTTON	-
6	INDICATING LIGHT	GREEN
7	CONTROL RELAY	-
8	TIME DELAY RELAY	-
9	4-PT. TERMINAL BLOCK	-
10	3 POSITION H-O-A SELECTOR SWITCH	-
11	120V AC STARTER RELAY	-



DETAIL A



FRONT VIEW



INSIDE SUBPANEL

VENTILATION PANEL

H O A

ITEM	NAME PLATE SCHEDULE	DEVICE STATUS
A	HI WATER LEVEL	EXISTING
B	LAG 5 PUMP CALLED	
C	LAG 4 PUMP CALLED	
D	LAG 3 PUMP CALLED	
E	LAG 2 PUMP CALLED	
F	LAG 1 PUMP CALLED	
G	LEAD PUMP CALLED	
H	LOW FLOW PUMP CALLED	
I	LOW WATER LEVEL	
J	ALARM ACKNOWLEDGE	
K	STAND-BY PUMP SELECTOR SWITCH	TO BE INSTALLED
L	SUPPLY FAN SF 1	
M	EXHAUST FAN EF 1	
N	SUPPLY FAN EF 2	
O	EXHAUST FAN EF 2	
P	FAN ON	
Q	FAN OFF	

NOTES:

1. ALL NEW DEVICES TO BE INSTALLED IN CONTROL PANEL SHOWN IN BOLD.
2. THE EXISTING RELAYS BCR7 THRU BCR17 SHALL BE REPLACED BY SQUARE D INTRINSICALLY SAFE BARRIER RELAYS, CAT #NY2A21, 120V AC SINGLE CHANNEL, DUAL RELAY OUTPUT.

PLOT DATE = 3/22/2010
FILE NAME = D1386828-sht-E-13.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

ILLINOIS DEPARTMENT OF TRANSPORTATION

CONTROL, VENTILATION TRASH RACK PANELS EQUIPMEMT LAYOUT

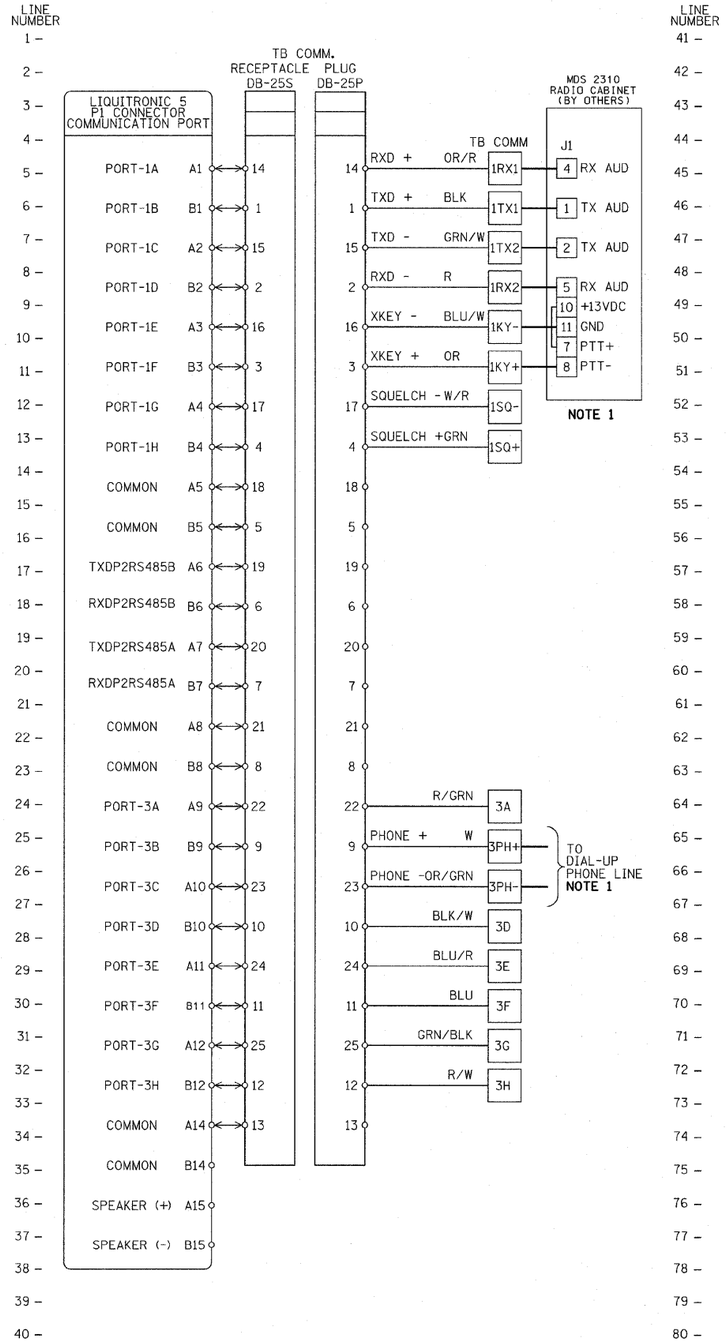
SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010

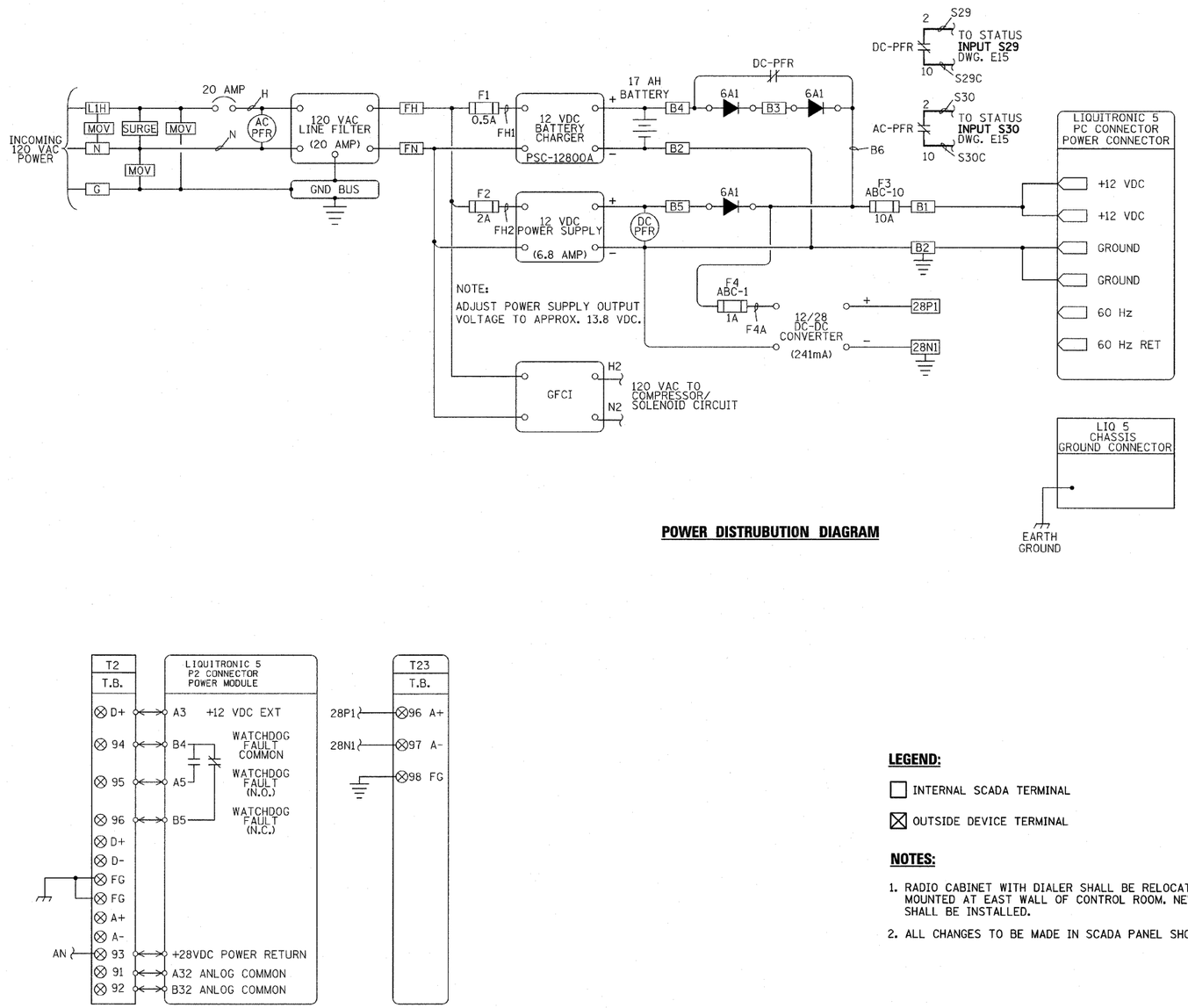
DRAWN BY: B.K.
CHECKED BY: M.Z.

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	56
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99





POWER DISTRUBUTION DIAGRAM

LEGEND:

☐ INTERNAL SCADA TERMINAL

☒ OUTSIDE DEVICE TERMINAL

NOTES:

1. RADIO CABINET WITH DIALER SHALL BE RELOCATED AND MOUNTED AT EAST WALL OF CONTROL ROOM. NEW CABLES SHALL BE INSTALLED.
2. ALL CHANGES TO BE MADE IN SCADA PANEL SHOWN IN BOLD.

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCADA PANEL SCHEMATIC/WIRING DIAGRAM SHEET 1

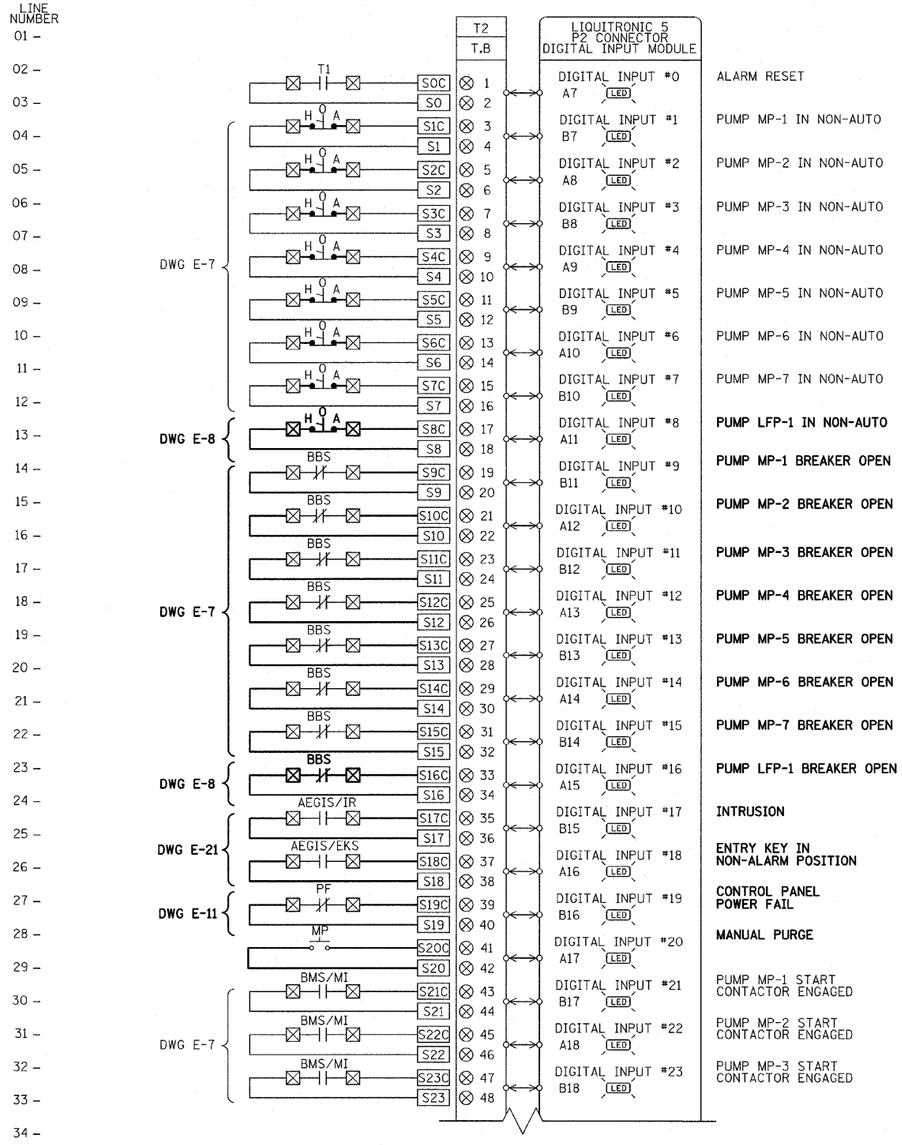
SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010
DRAWN BY: B.K.
CHECKED BY: M.Z.

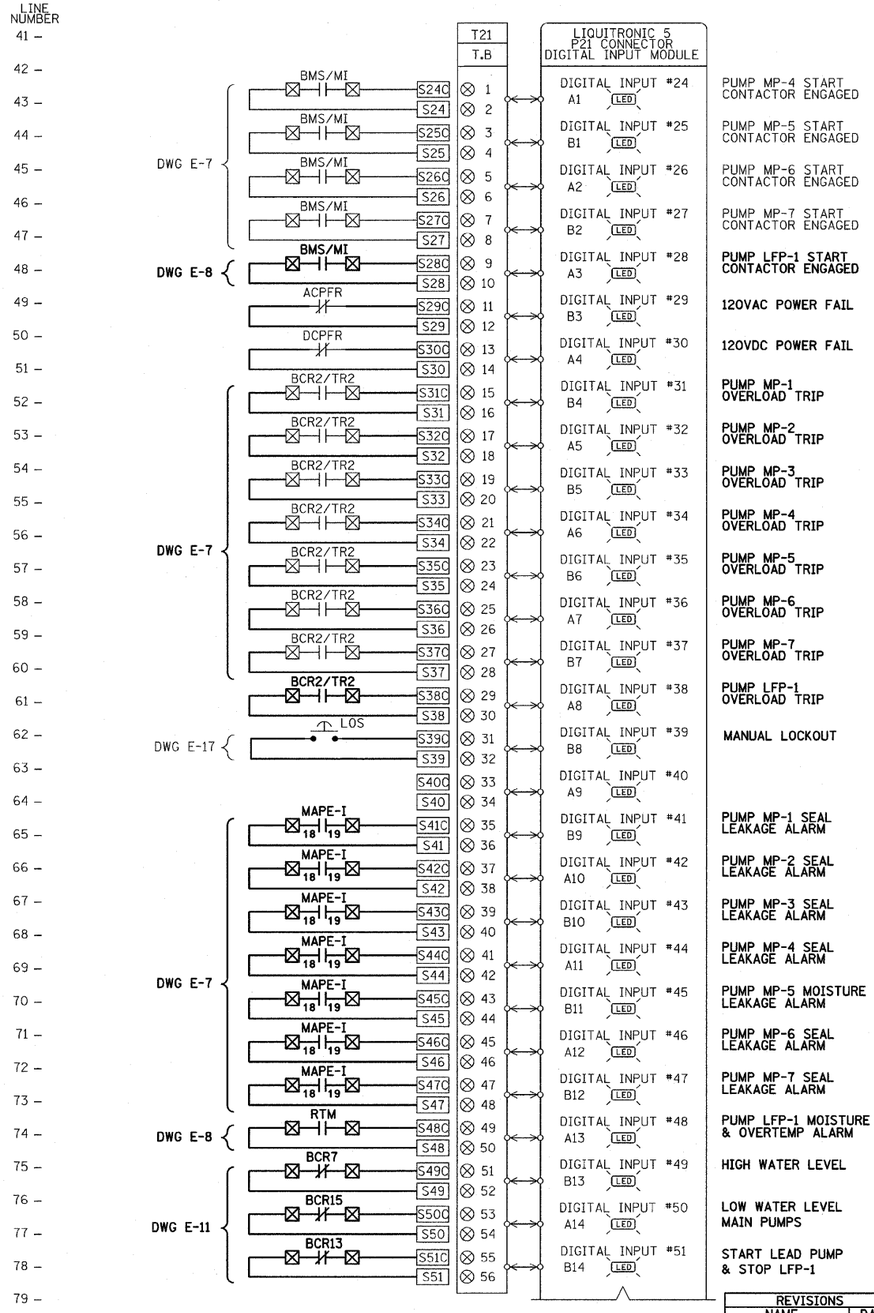
PLOT DATE = 3/22/2010
FILE NAME = D:\60828-sht-E-14.dgn
PLOT SCALE = 1.000
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	57
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99





NOTES:

1. FOR NOTES AND LEGEND SEE DWG E-14.
2. REMOVE EXISTING FIELD WIRING FROM POINTS S18 & S18C THRU S19 & S19C, S28, S28C, S29, S29C, S31 & S31C THRU S36 & S36C. REWIRE AS SHOWN.

REVISIONS	
NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

ILLINOIS DEPARTMENT OF TRANSPORTATION

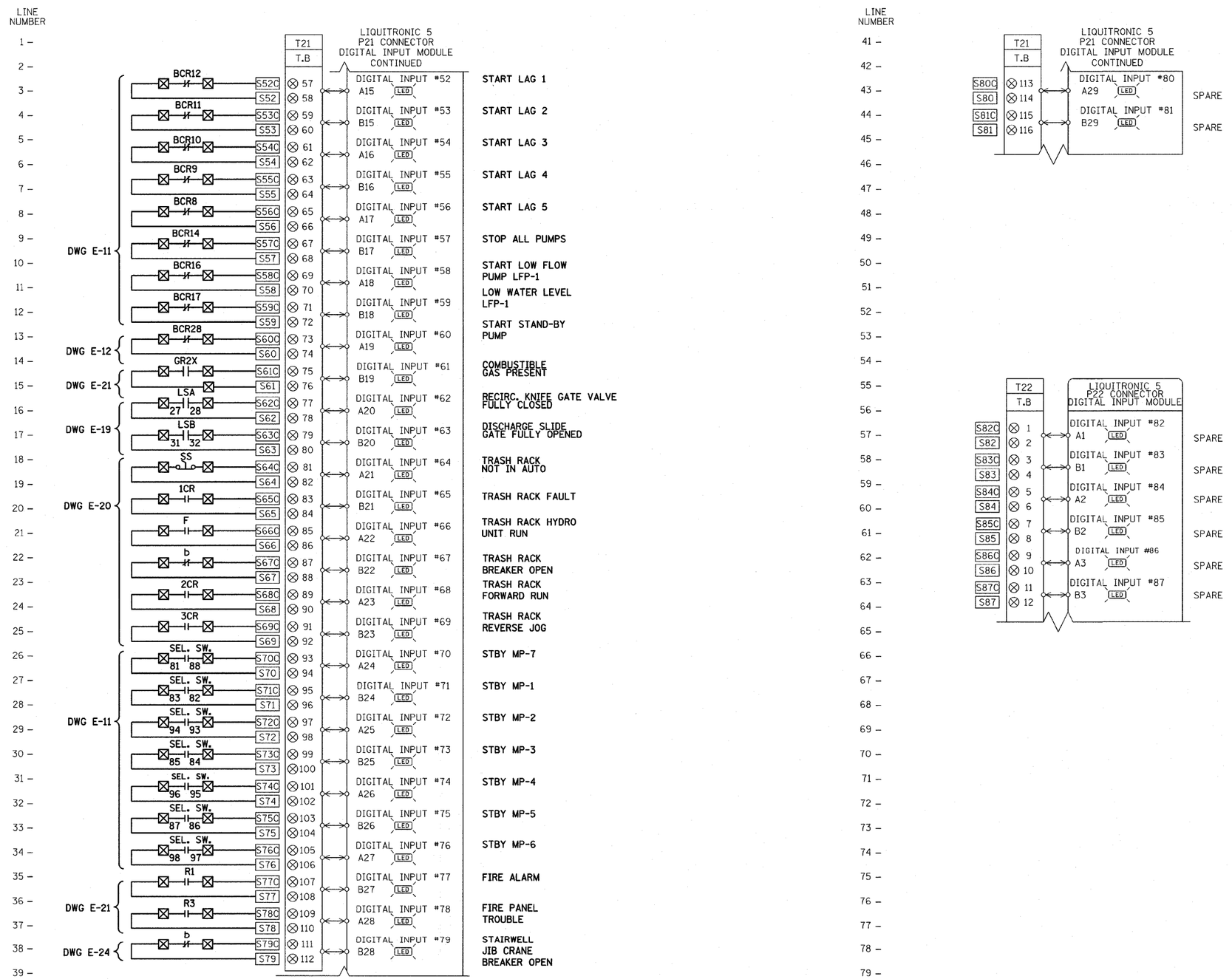
SCADA PANEL SCHEMATIC/WIRING DIAGRAM SHEET 2

SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010
DRAWN BY: B.K.
CHECKED BY: M.Z.

PLOT DATE = 3/22/2010
FILE NAME = I:\60828\dgn\E-15.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	58
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
D-91-411-99				



NOTES:

1. FOR NOTES AND LEGEND SEE DWG E-14.

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-00533

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCADA PANEL SCHEMATIC/WIRING DIAGRAM SHEET 3

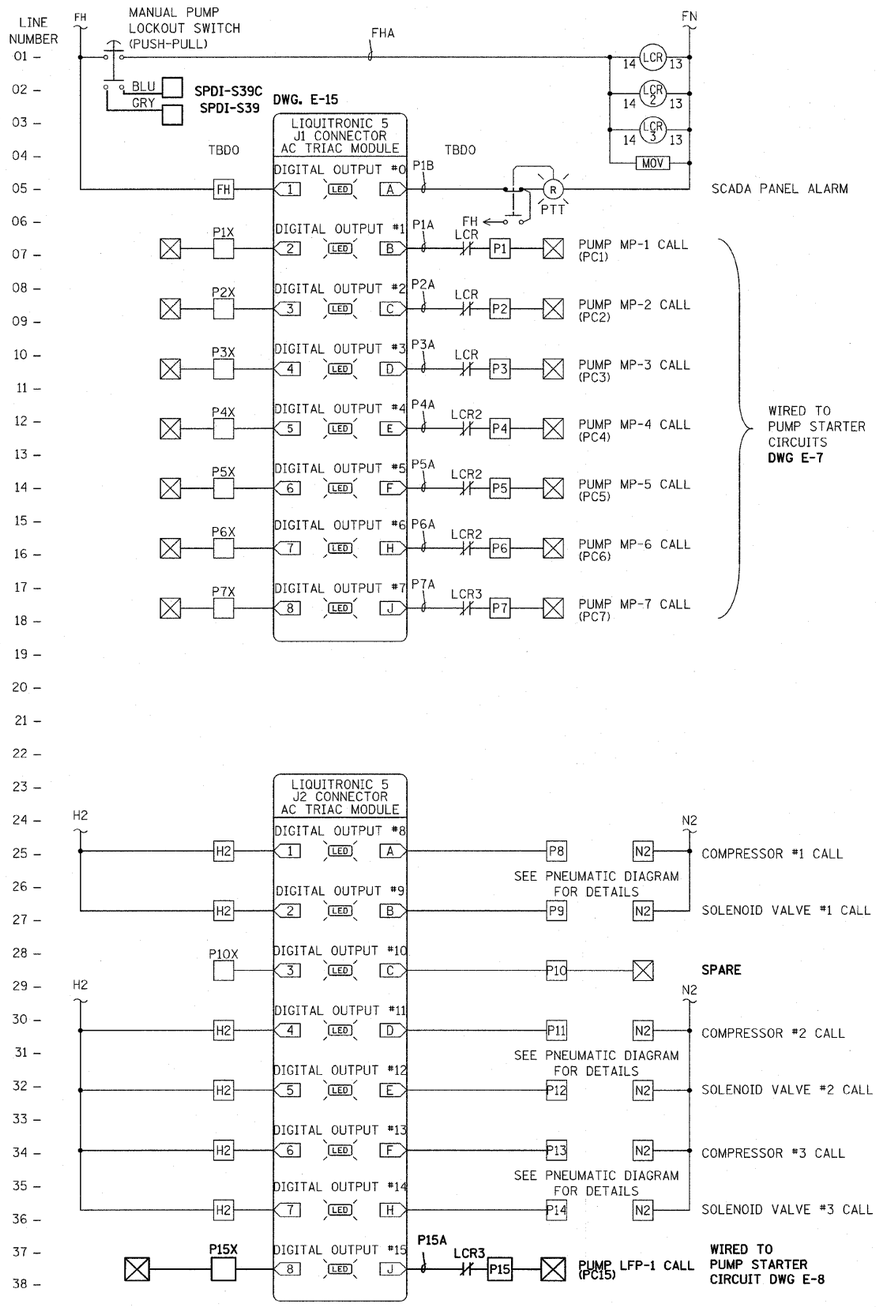
SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010
DRAWN BY: B.K.
CHECKED BY: M.Z.

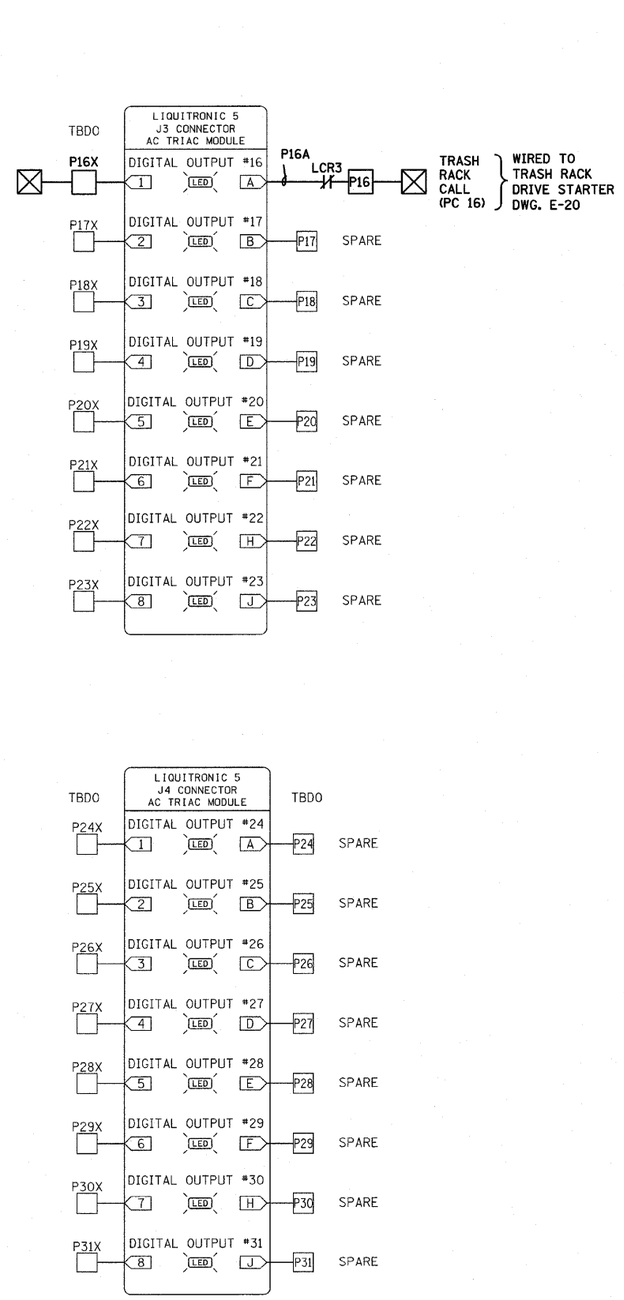
PLOT DATE = 3/22/2010
FILE NAME = I:\60828\Sht-E-16.dgn
PLOT SCALE = 1.0000 '/ IN.
USER NAME = *USER*

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	59
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99





LED ALARM INDICATIONS

CENTRAL PUMP TEST
PAVEMENT FLOODING ALARM
LOW WETWELL LEVEL AND A PUMP IS RUNNING IN AUTO
PRIMARY BUBBLER TRANSDUCER FAILURE
SECONDARY BUBBLER TRANSDUCER FAILURE
SERVICE #1 POWER FAILURE
SERVICE #2 POWER FAILURE
AIR COMPRESSOR POWER FAILURE
HIGH WETWELL LEVEL AND PUMP ALARM
HIGH WETWELL LEVEL AND NO PUMP ALARMS
CLOGGED BAR SCREEN
MISSED PATROL
PATROLMAN FAILED TO RESPOND
ENTRY KEY SWITCH LEFT IN NON-ALARM POSITION
TOTAL POWER FAILURE TO STATION
120 VAC FAILURE TO CONTROL PROCESSOR
12 VDC FAILURE TO CONTROL PROCESSOR
ELECTRODE POWER FAILURE ALARM

PUMP 1 HIGH CURRENT ALARM
PUMP 2 HIGH CURRENT ALARM
PUMP 3 HIGH CURRENT ALARM
PUMP 4 HIGH CURRENT ALARM
PUMP 5 HIGH CURRENT ALARM
PUMP 6 HIGH CURRENT ALARM
PUMP 7 HIGH CURRENT ALARM
LOW FLOW PUMP HIGH CURRENT ALARM

PUMP 1 LOW CURRENT ALARM
PUMP 2 LOW CURRENT ALARM
PUMP 3 LOW CURRENT ALARM
PUMP 4 LOW CURRENT ALARM
PUMP 5 LOW CURRENT ALARM
PUMP 6 LOW CURRENT ALARM
PUMP 7 LOW CURRENT ALARM
LOW FLOW PUMP LOW CURRENT ALARM

PUMP 1 LEFT IN NON-AUTO
PUMP 2 LEFT IN NON-AUTO
PUMP 3 LEFT IN NON-AUTO
PUMP 4 LEFT IN NON-AUTO
PUMP 5 LEFT IN NON-AUTO
PUMP 6 LEFT IN NON-AUTO
PUMP 7 LEFT IN NON-AUTO
LOW FLOW PUMP LEFT IN NON-AUTO
TRASH RACK LEFT IN NON-AUTO

PUMP 1 BREAKER OPEN ALARM
PUMP 2 BREAKER OPEN ALARM
PUMP 3 BREAKER OPEN ALARM
PUMP 4 BREAKER OPEN ALARM
PUMP 5 BREAKER OPEN ALARM
PUMP 6 BREAKER OPEN ALARM
PUMP 7 BREAKER OPEN ALARM
LOW FLOW PUMP BREAKER OPEN ALARM
TRASH RACK BREAKER OPEN ALARM

PUMP 1 UNDER MAINTENANCE
PUMP 2 UNDER MAINTENANCE
PUMP 3 UNDER MAINTENANCE
PUMP 4 UNDER MAINTENANCE
PUMP 5 UNDER MAINTENANCE
PUMP 6 UNDER MAINTENANCE
PUMP 7 UNDER MAINTENANCE
LOW FLOW PUMP UNDER MAINTENANCE

NOTES:

1. FOR NOTES AND LEGEND SEE DWG. E-14.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCADA PANEL SCHEMATIC/WIRING DIAGRAM SHEET 4

SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010
DRAWN BY: B.K.
CHECKED BY: M.Z.

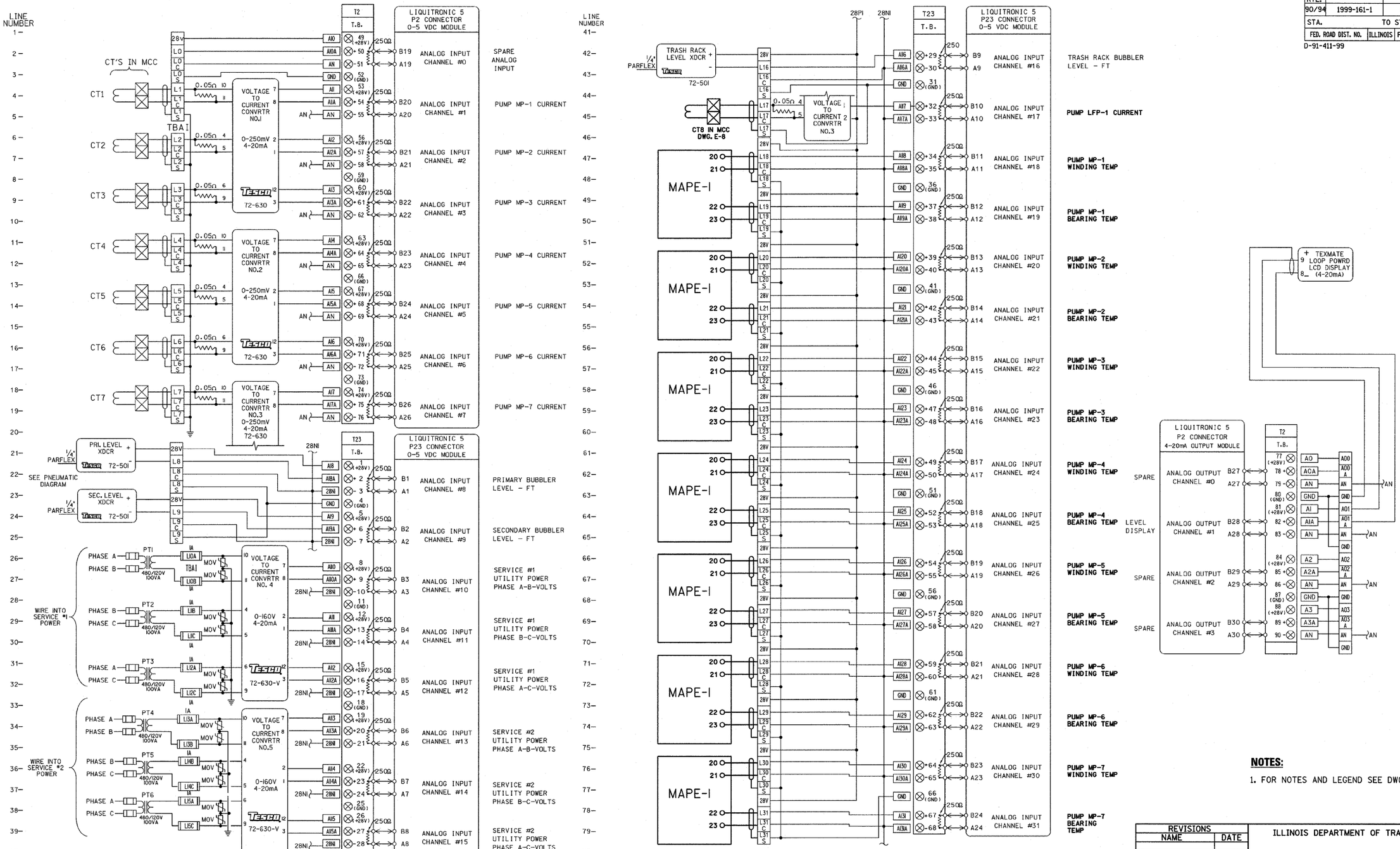
Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-00533

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-sht-E-17.dgn
PLOT SCALE = 1.0 '/ '
USER NAME = *USER*

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	60
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



NOTES:

1. FOR NOTES AND LEGEND SEE DWG E-14.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCADA PANEL SCHEMATIC/WIRING DIAGRAM SHEET 5

SCALE: VERT. NO SCALE HORIZ.

DATE: 3/23/2010

DRAWN BY: B.K.

CHECKED BY: M.Z.

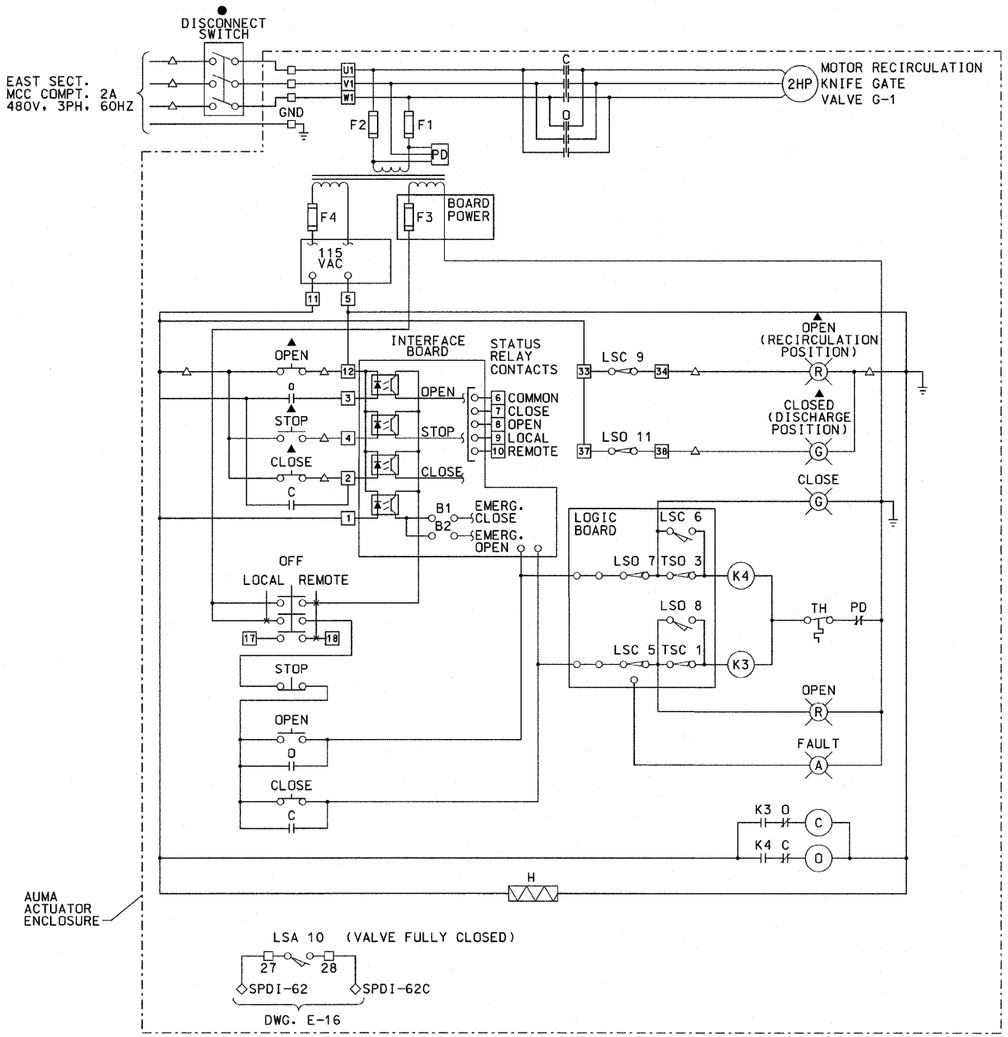
Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No. 184-001533

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-sht-E-18.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

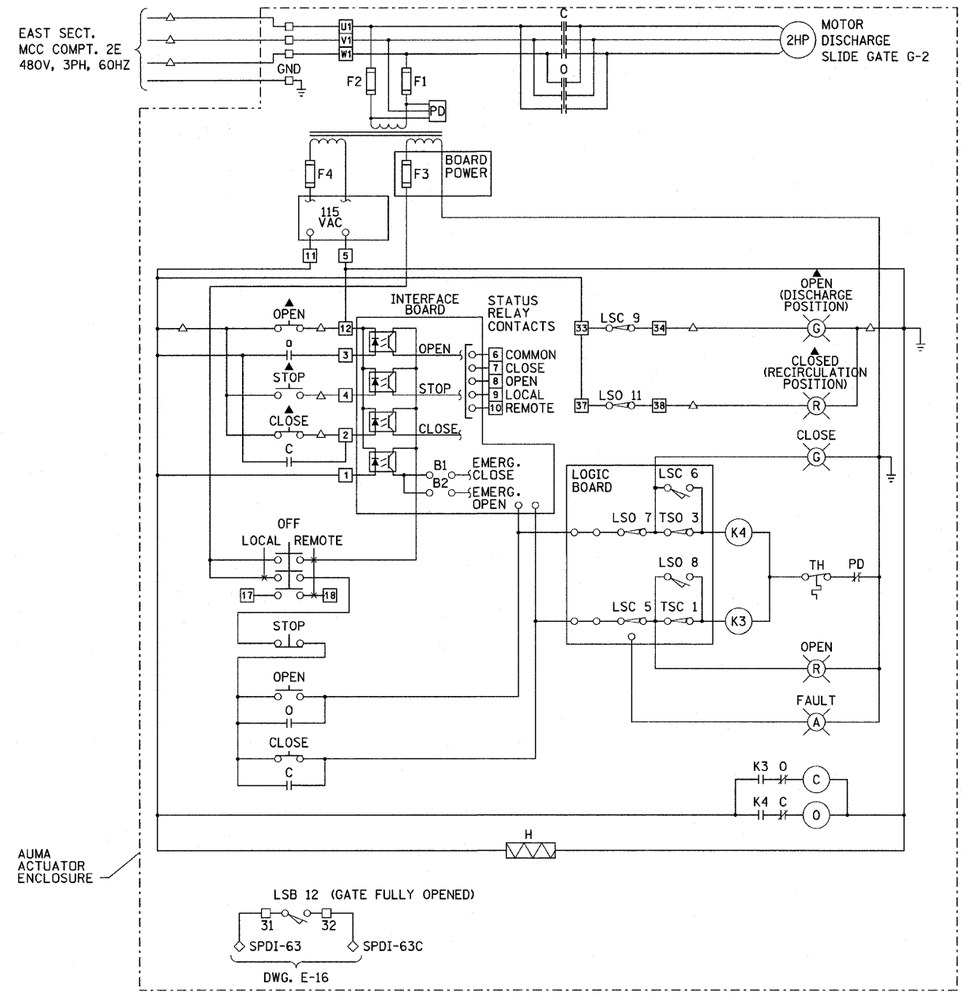
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	61
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



RECIRCULATION KNIFE GATE VALVE ACTUATOR G-1
(VALVE SHOWN IN THE INTERMEDIATE POSITION)



DISCHARGE SLIDE GATE ACTUATOR G-2
(GATE SHOWN IN THE INTERMEDIATE POSITION)

SWITCH NUMBERS	VALVE/GATE POSITION OPEN	INTERMEDIATE	CLOSE
LSC 5 (13)	■	■	
LSC 6 (14)			■
LSO 7 (15)		■	■
LSO 8 (16)	■		
LSA 9 (17)	■	■	
LSA 10 (18)			■
LSB 11 (19)		■	■
LSB 12 (20)	■		

(——) OPEN CONTACTS (■) CLOSE CONTACTS

(TYPICAL FOR ACTUATOR G1 & G2)

LEGEND:

△ TERMINAL LOCATED IN MCC
□ TERMINAL LOCATED IN LOCAL MOTOR STARTER
◇ TERMINAL LOCATED IN SCADA PANEL
● DEVICE LOCALLY MOUNTED
▲ DEVICE LOCATED ON MCC DOOR

NOTES:

1. ALL DEVICES MOUNTED IN MOTOR STARTER UNLESS OTHERWISE NOTED.
2. FOR EXPLOSION PROOF UNITS CONDUIT SEAL SHALL BE PLACED AS CLOSE AS PRACTICAL TO THE ACTUATOR BUT NO FURTHER THAN 18".

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60643-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FLOW RECIRCULATION SYSTEM CONTROL SCHEMATICS

SCALE: VERT. NO SCALE
HORIZ.
DATE: 3/23/2010

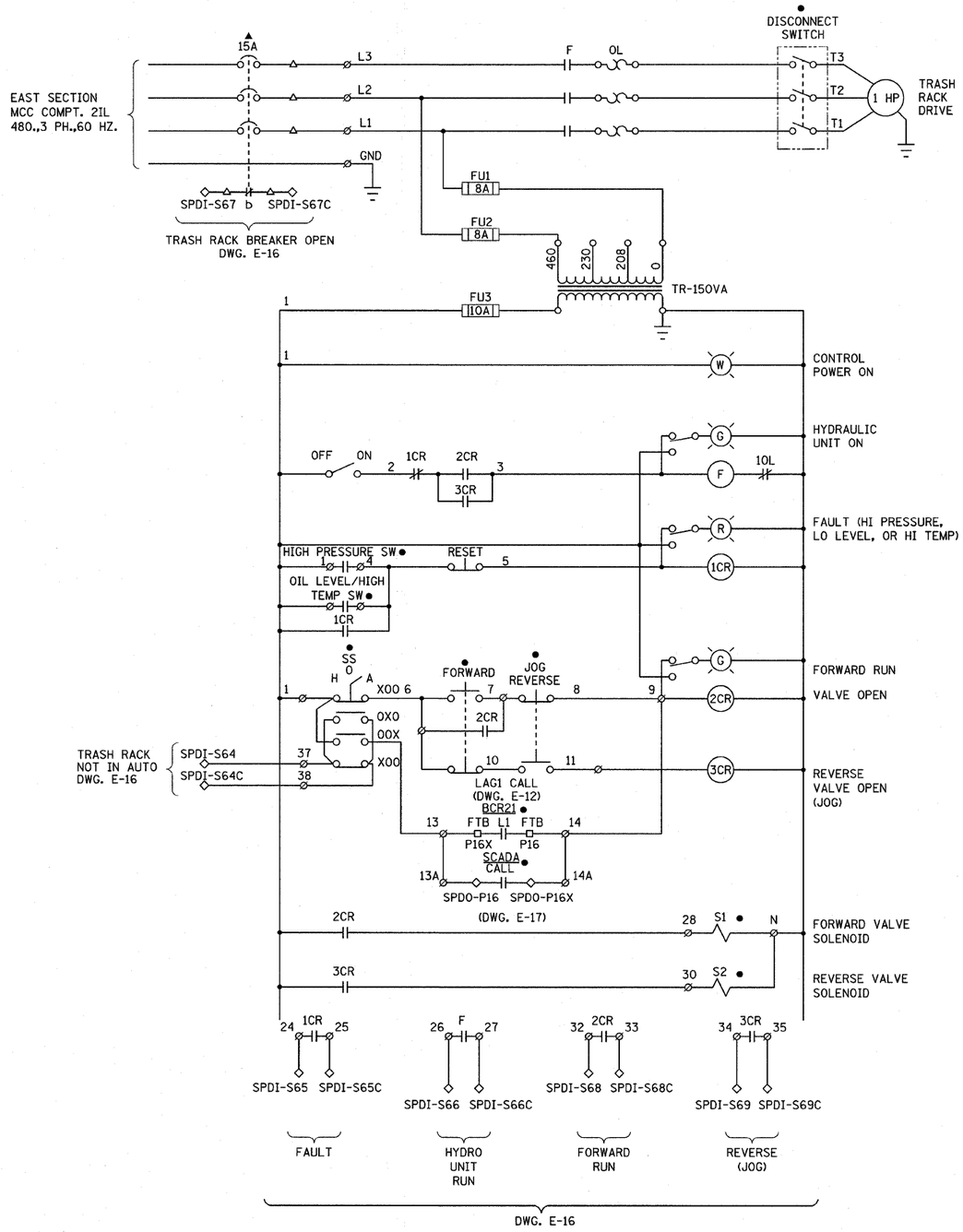
DRAWN BY: B.K.
CHECKED BY: M.Z.

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-sht-E-19.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	62
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



NOTES:

1. ALL DEVICES ARE LOCATED IN TRASH RACK CONTROL PANEL UNLESS NOTED OTHERWISE.
2. VERIFY WIRING WITH VENDOR AFTER EQUIPMENT HAS BEEN PURCHASED.

LEGEND:

- △ TERMINAL IN MCC
- □ TERMINAL IN CONTROL PANEL
- ◇ TERMINAL IN SCADA PANEL
- ⌀ TERMINAL IN TRASH RACK CONTROL PANEL
- ▲ DEVICE LOCATED IN MCC
- ● DEVICE MOUNTED LOCALLY IN WATERPROOF AND EXPLOSION PROOF STATION

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-sht-E-20.dgn
PLOT SCALE = 1.0
USER NAME = #USER#

REVISIONS NAME	DATE

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60633-2801
www.stanleygroup.com
Illinois Firm Registration No: 184-00633

ILLINOIS DEPARTMENT OF TRANSPORTATION

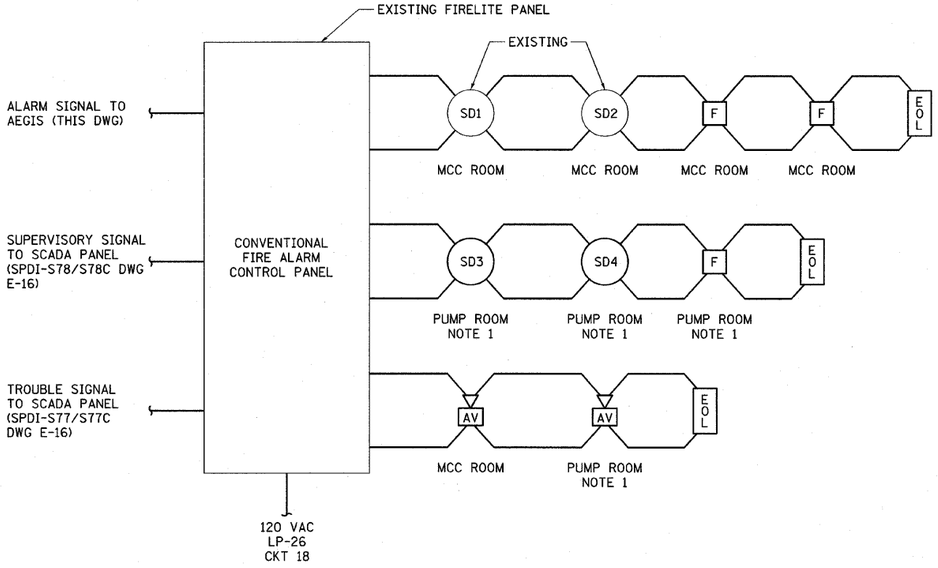
TRASH RACK DRIVE CONTROL SCHEMATICS

SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010
DRAWN BY: B.K.
CHECKED BY: M.Z.

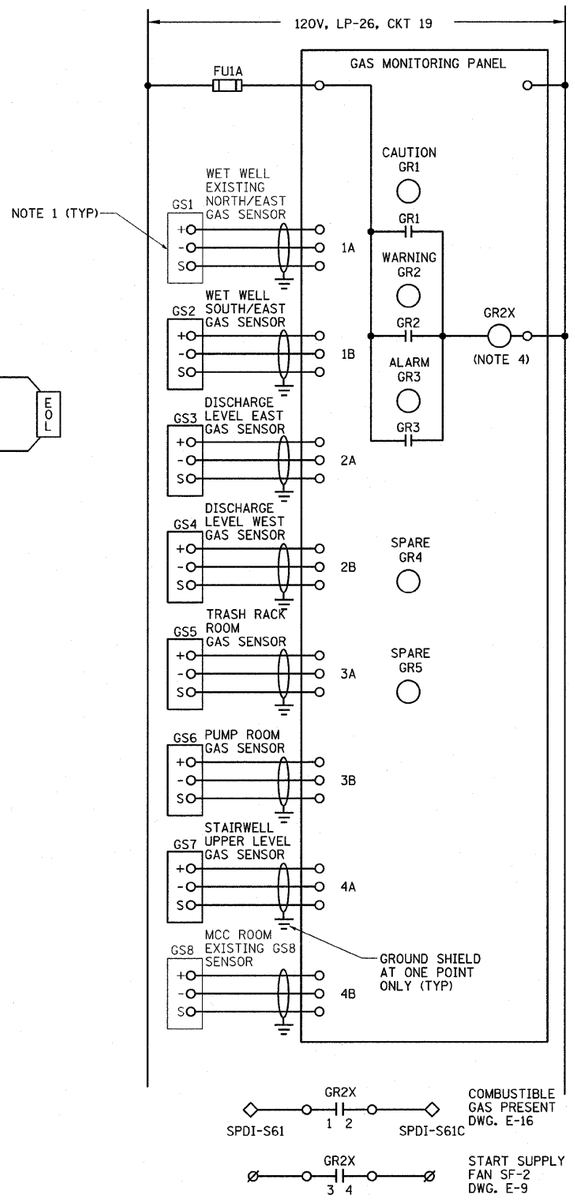
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	63
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

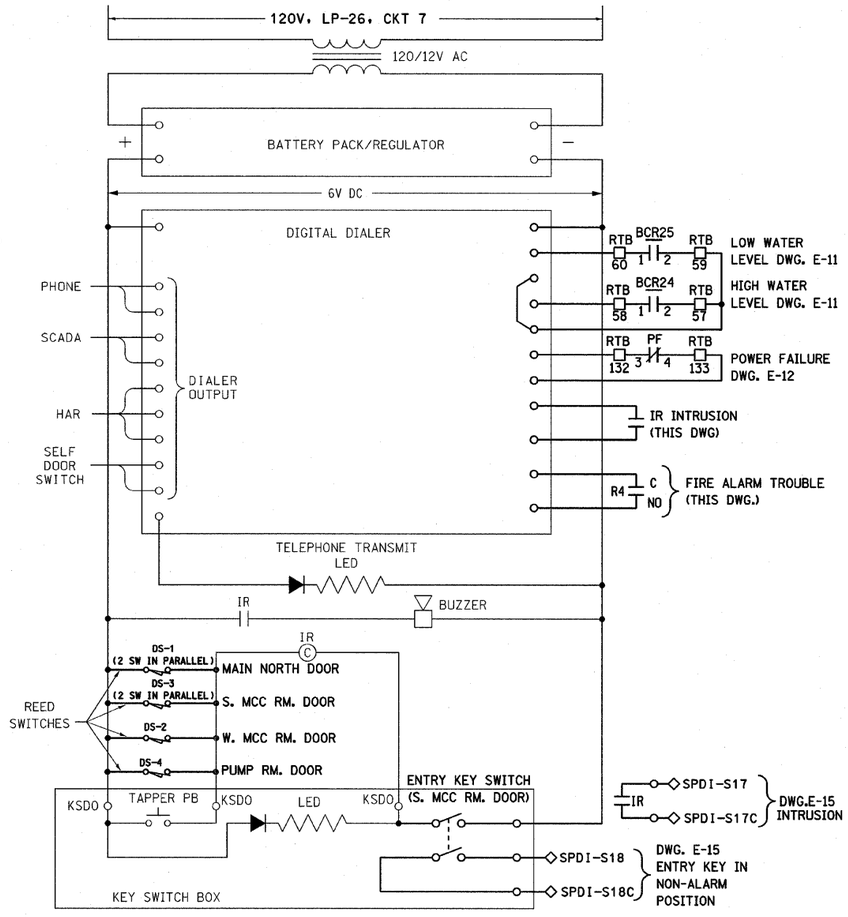
D-91-411-99



FIRE ALARM CIRCUIT



COMBUSTIBLE GAS MONITORING CIRCUIT



AEGIS/INSTRUSION ALARM CIRCUIT
(NOTE 2&3)

NOTES:

1. DEVICES SHALL BE RATED FOR CLASS 1 DIV 1 LOCATIONS.
2. EXISTING AEGIS/INTRUSION ALARM SYSTEM CABINET SHALL BE RELOCATED AND MOUNTED AT NORTH WALL IN MCC ROOM. NEW CABLES TO BE INSTALLED.
3. TERMINALS AND WIRING FOR AEGIS SYSTEM SHALL BE VERIFIED IN FIELD.
4. RELAY GR2X SHALL BE INSTALLED IN THE GAS MONITORING PANEL.

LEGEND:

- ◇ TERMINAL IN SCADA PANEL
- △ TERMINAL IN MOTOR STARTER
- □ TERMINAL IN CONTROL PANEL
- ○ TERMINAL IN GAS MONITORING PANEL, FIRE ALARM PANEL OR AEGIS.
- ⌀ TERMINAL IN VENTILATION PANEL
- EOL END-OF-LINE RESISTOR

PLOT DATE = 3/22/2010
FILE NAME = D:\08828-mis-E-21.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60193-2804
www.stanleygroup.com
Illinois Fire Registration No. 184-00533

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

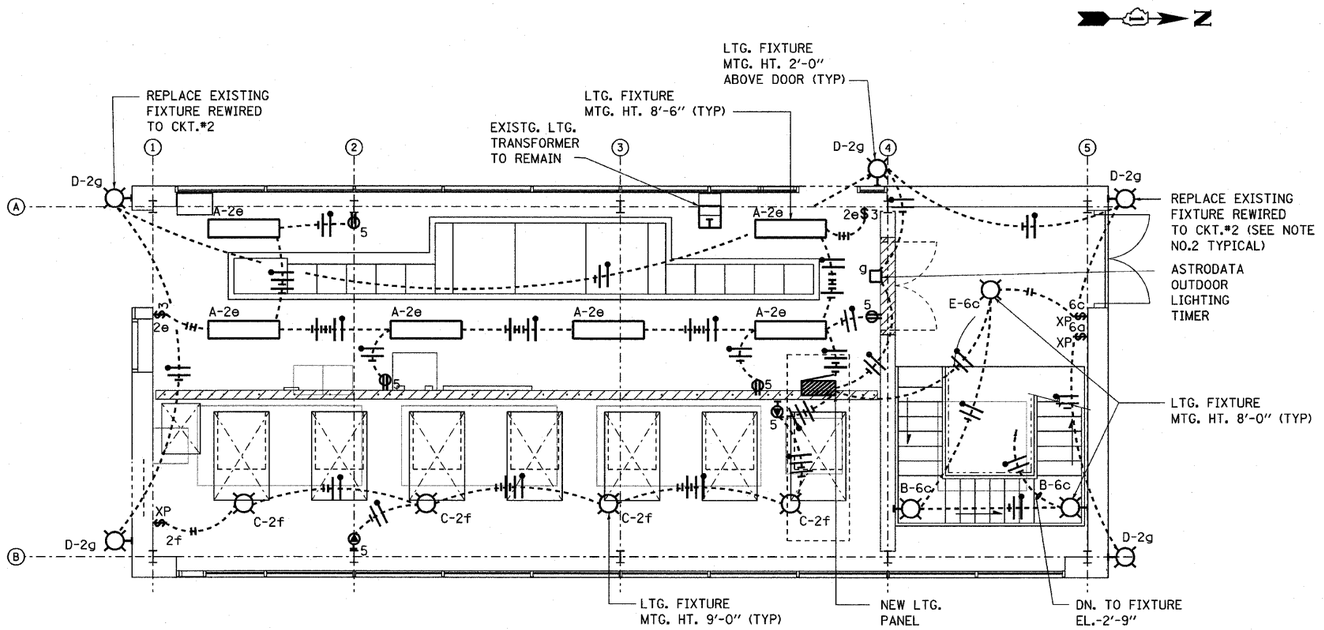
INTRUSION, GAS MONITORING & FIRE ALARM SCHEMATICS

SCALE: VERT. NO SCALE HORIZ.
DATE: 3/23/2010
DRAWN BY: B.K.
CHECKED BY: M.Z.

CONTRACT NO. 60828

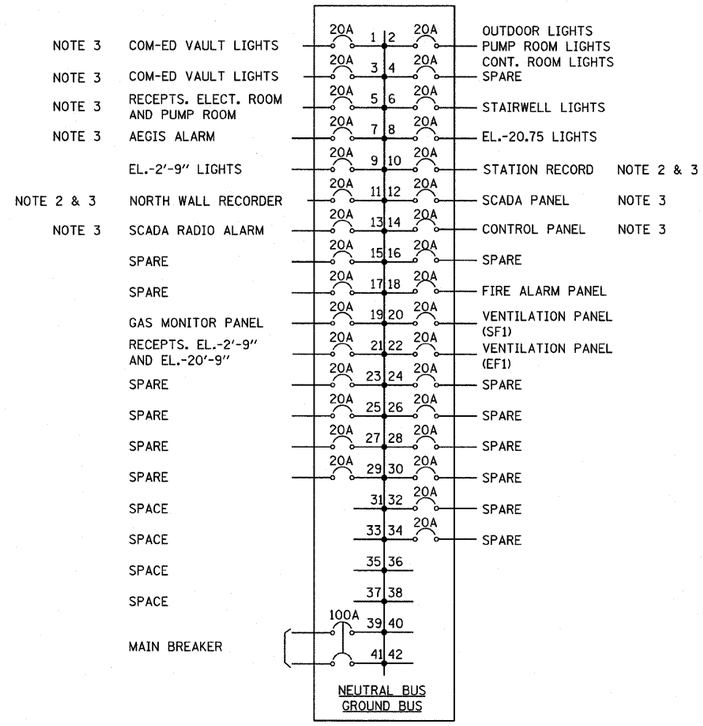
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	64
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



PLAN A–A AT EL.+15'-3"

SCALE: 1/4" = 1'-0"



LIGHTING PANEL 26 (LP–26) 120/240V., 100A MB

SCALE: NO SCALE

LIGHTING FIXTURE SCHEDULE

TYPE	LAMPS	MOUNTING	DESCRIPTION
A	3 F40CW/RS/EW/11	PENDANT	COLUMBIA LTG. FIXT. W/PORCLELAIN REFLECTOR CAT. NO. KL4-332-PR-3120V-GLR OR APPROVED EQUAL.
B	1 150W/A23	WALL	APPLETON EXPLOSION-PROOF LTG. FIXT. A-51 SERIES CAT. NO. ALB1575-G OR APPROVED EQUAL.
C	1 70W/HPS/S62	PENDANT	APPLETON CODEMASTER JR SERIES EXPLOSION-PROOF LTG. FIXT. CAT NO. CJLP-7075MT W/ALUMINUM GUARD CAT. NO. CJGU-15 AND DOME CAT. NO. KR-2ST OR APPROVED EQUAL
D	1 50W/HPS/B-17	WALL	HOLOPHANE WP SERIES WALL MOUNTED CAT. NO. WP1A50DHP12GR-WPTP-WPIWG OR APPROVED EQUAL
E	1 150W/A23	PENDANT	APPLETON EXPLOSION-PROOF LTG. FIXT. A-51 SERIES CAT. NO. AP1575-G W/DOME CAT. NO. AARP-2ST OR APPROVED EQUAL.
F	1 100W/HPS/S54	PENDANT	APPLETON CODEMASTER JR SERIES EXPLOSION-PROOF LTG. FIXT. CAT NO. CJLP-1075MT W/ALUMINUM GUARD CAT. NO. CJGU-15 AND DOME CAT. NO. KR-2ST OR APPROVED EQUAL
G	1 70W/HPS/S62	WALL	APPLETON CODEMASTER JR SERIES EXPLOSION-PROOF LTG. FIXT. CAT NO. CJLB-7075MT W/ALUMINUM GUARD CAT. NO. CJGU-15 APPROVED EQUAL

NOTES:

1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST NEC REQUIREMENTS FOR CLASS 1 DIVISION 1 GROUP D HAZARDOUS LOCATIONS, EXCEPT THE ELECTRICAL ROOM.
2. NORTH WALL RECORDER AND STATION RECORDER CIRCUITS SHALL BE TRACED AND COORDINATED WITH ENGINEER.
3. CIRCUITS 1, 3, 5, 7, 10, 11, 12, 13 & 14 ARE EXISTING FEEDS TO BE REROUTED FROM THE OLD LIGHTING PANEL BEFORE IT IS REMOVED.
4. LIGHTING LOCATIONS SHALL BE FIELD ADJUSTED TO AVOID CONFLICTS WITH MECHANICAL OR ELECTRICAL EQUIPMENT.
5. ALL CONDUIT BOTH EXISTING AND NEW PENETRATIONS THROUGH WALL AND/OR FLOOR SLAB BETWEEN HAZARDOUS AND NON-HAZARDOUS AREAS SHALL BE GROUTED GAS TIGHT.
6. ALL CONDUIT AND FITTINGS INSTALLED BELOW GRADE SHALL BE PVC COATED.
7. ALL CONDUIT AND FITTINGS INSTALLED IN HAZARDOUS AREAS SHALL BE INTRINSICALLY SAFE.

4 3 2 1 0 4 8 — 1/4"= 1'-0"

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-001533

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ELECTRICAL LIGHTING PLAN, PANEL BOARD & FIXTURE SCHEDULE – SHEET 1

SCALE: VERT. AS NOTED HORIZ.
DATE: 3/23/2010

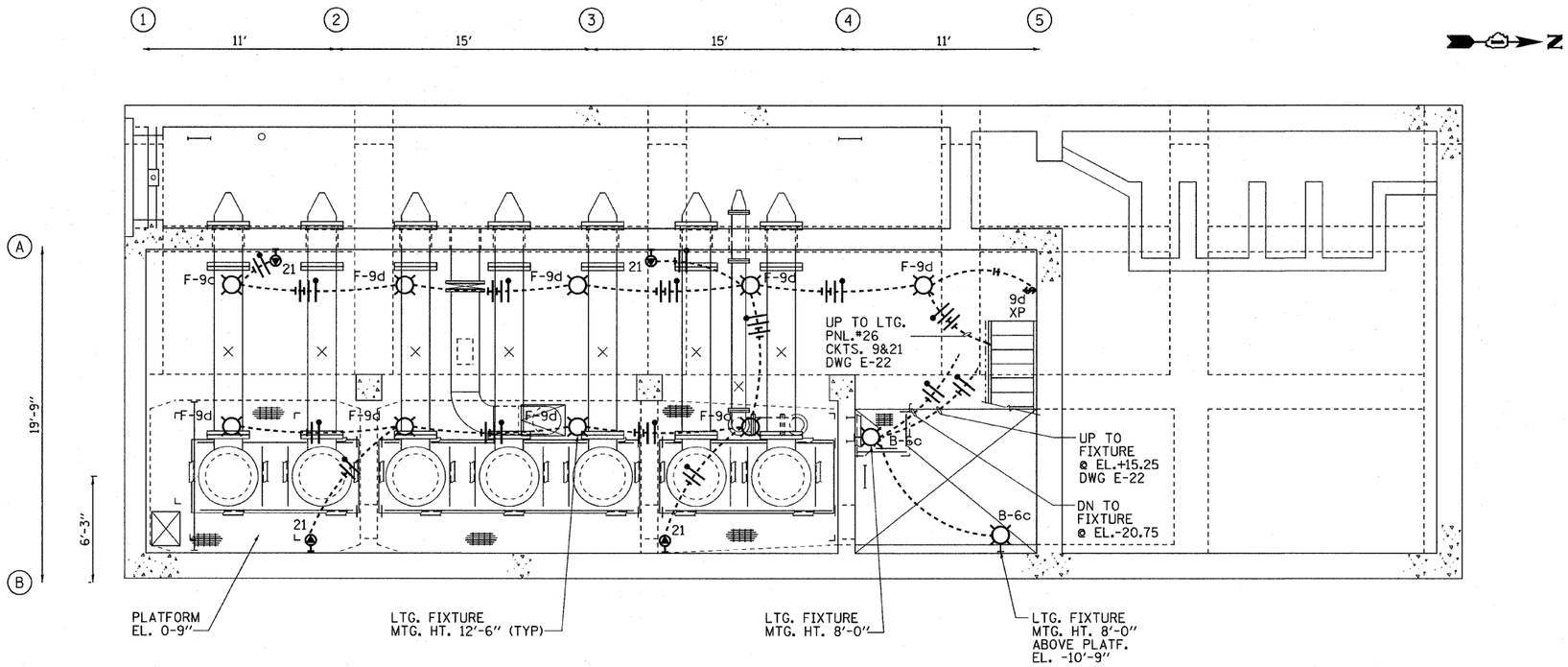
DRAWN BY: B.K.
CHECKED BY: M.Z.

PLOT DATE = 3/22/2010
FILE NAME = D:\60828\dgn\E-22.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

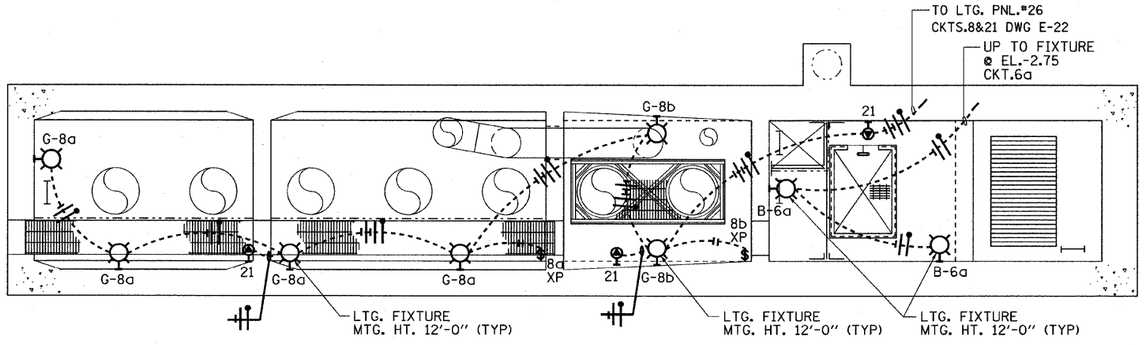
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	65
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



PLAN B-B AT EL.-2.75'



PLAN C-C AT EL.-20'-9"

4 3 2 1 0 4 8 — 1/4"= 1'-0"

NOTES:

ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST NEC REQUIREMENTS FOR CLASS 1 DIVISION 1 GROUP D HAZARDOUS LOCATIONS, EXCEPT THE ELECTRICAL ROOM.

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-000533

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ELECTRICAL LIGHTING PLANS - SHEET 2

SCALE: VERT. 1/4"=1'-0" HORIZ.
DATE: 3/23/2010

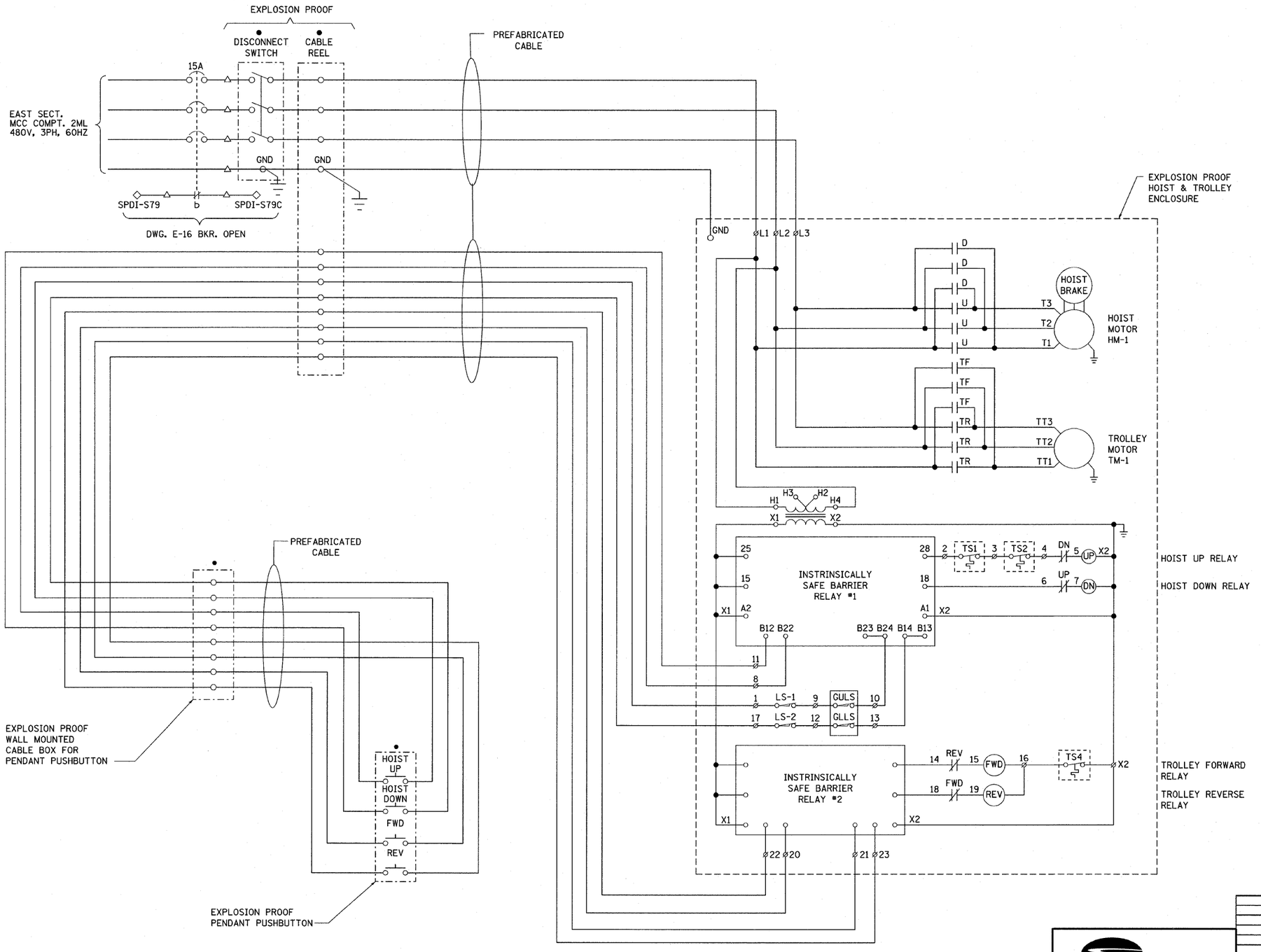
DRAWN BY: B.K.
CHECKED BY: M.Z.

PLOT DATE = 3/22/2010
FILE NAME = D:\60828-sht-E-23.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	66
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



LEGEND:

- △ TERMINAL LOCATED IN MOTOR STARTER
- □ TERMINAL LOCATED IN CONTROL PANEL
- ◇ TERMINAL LOCATED IN SCADA PANEL
- ▲ DEVICE LOCATED ON MOTOR STARTER DOOR
- ⌀ TERMINAL LOCATED IN YALE CONTROL BOX
- • DEVICE LOCALLY MOUNTED

LS1 - UPPER LIMIT SWITCH

LS2 - LOWER LIMIT SWITCH

GULS - GEARED UPPER LIMIT SWITCH

GLLS - GEARED LOWER LIMIT SWITCH

TS1, TS2 - HOIST MOTOR TEMPERATURE SWITCH

TS 4 - TROLLY MOTOR TEMPERATURE SWITCH

NOTES:

1. FOR PROPER LIMIT SWITCH OPERATION THE HOIST LOAD BLOCK MUST TRAVEL UP WHEN THE UP BUTTON IS DEPRESSED. IF THE LOAD BLOCK TRAVELS DOWN, REVERSE ANY TWO LINE LEADS (L1, L2 OR L3)
2. VERIFY WIRING WITH VENDOR AFTER EQUIPMENT IS PURCHASED.

PLOT DATE = 3/23/2010
FILE NAME = D:\60828-sht-E-24.dgn
PLOT SCALE = 1.0
USER NAME = *USER*

REVISIONS NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-006533

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAIRWELL (TRASHBIN)
JIB CRANE CONTROL SCHEMATIC

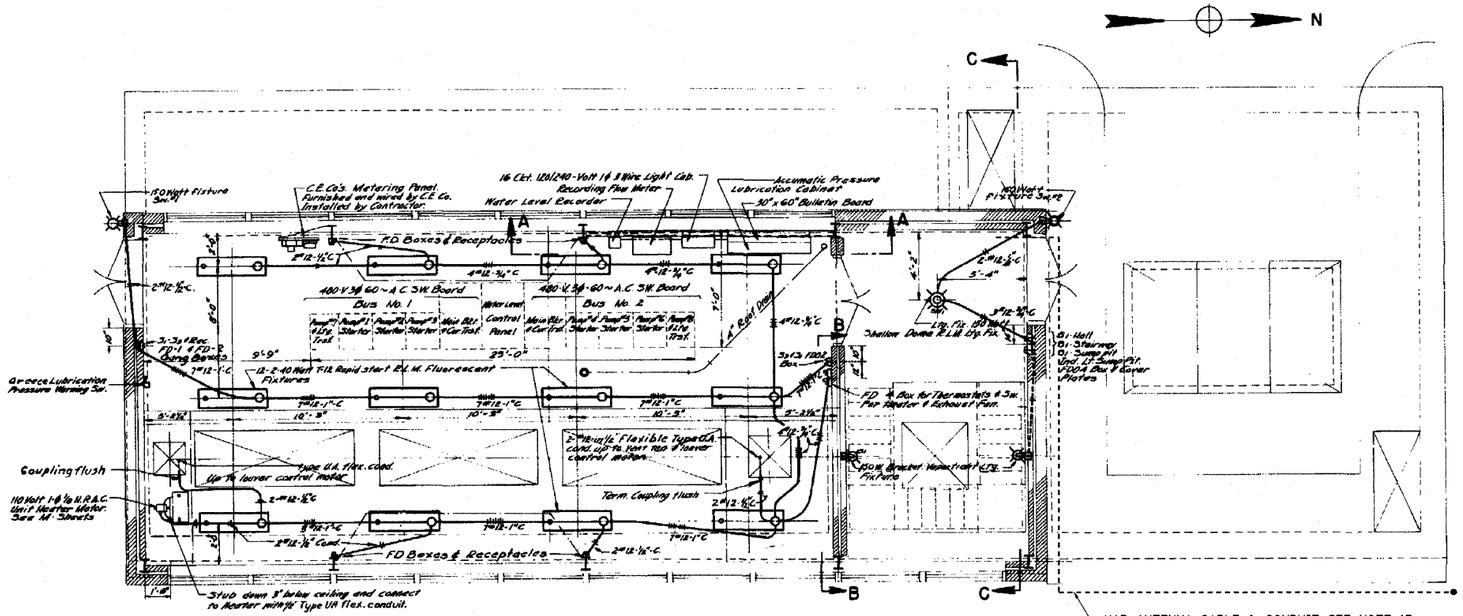
SCALE: VERT. NO SCALE
HORIZ.
DATE: 3/23/2010

DRAWN BY: B.K.
CHECKED BY: M.Z.

CONTRACT NO. 60828

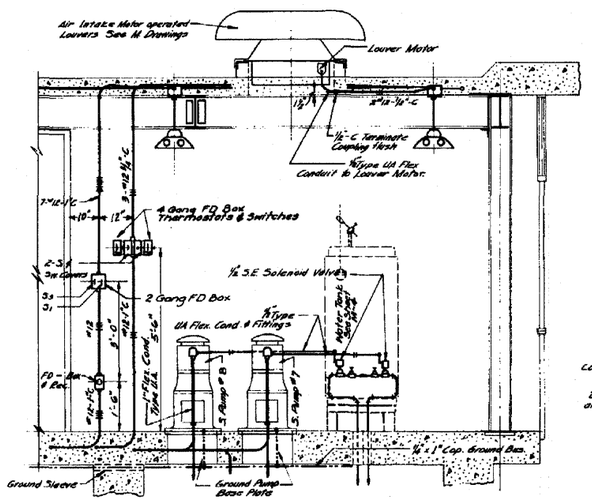
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	67
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



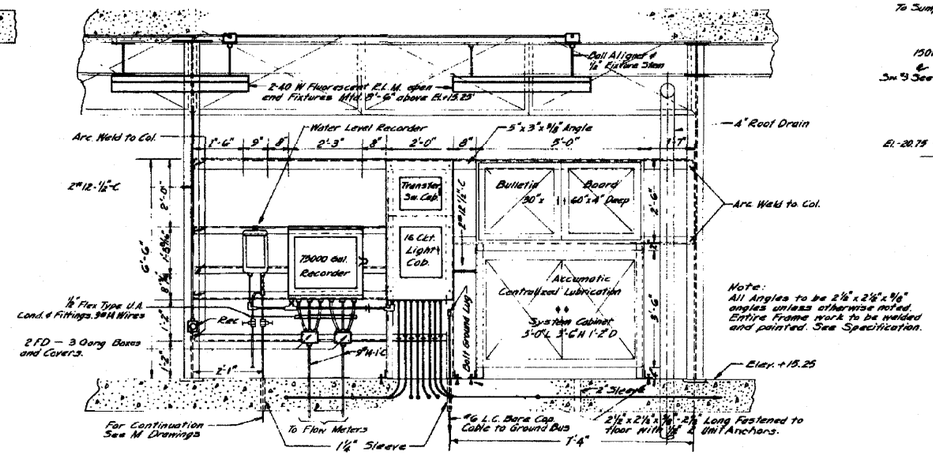
ROOF PLAN ELEV. + 25.25

SCALE: 1/2" = 1'-0"



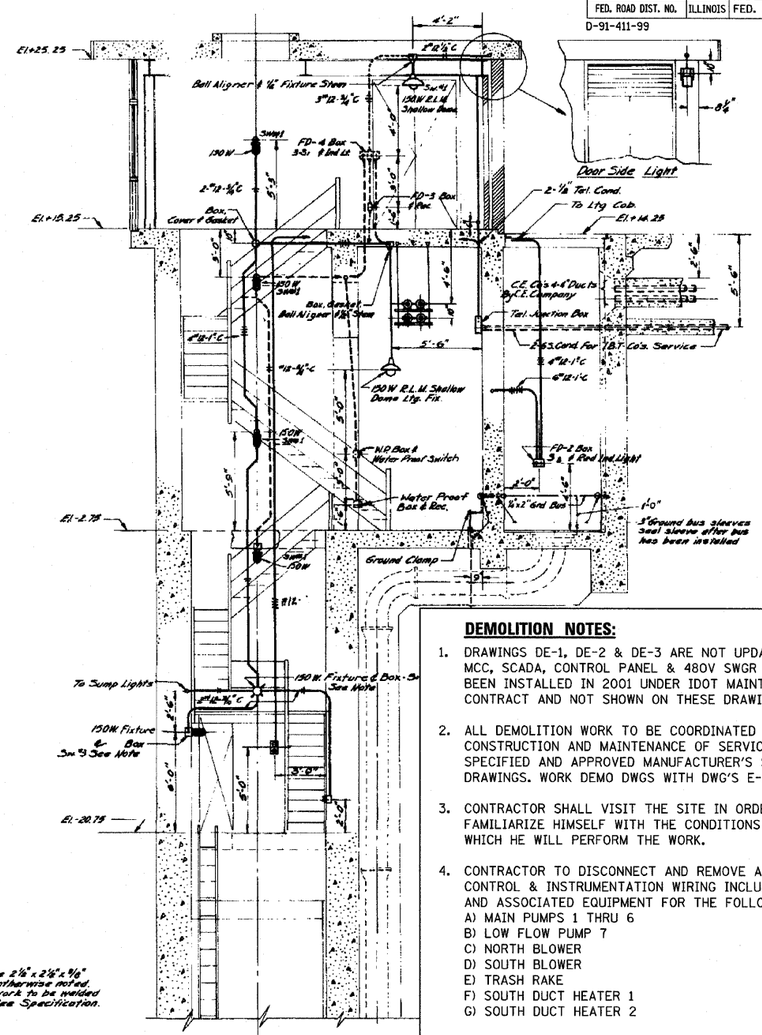
ELEVATION B–B

NO SCALE



ELEVATION A–A

NO SCALE



SECTION C–C

NO SCALE

DEMOLITION NOTES:

1. DRAWINGS DE-1, DE-2 & DE-3 ARE NOT UPDATED. NEW MCC, SCADA, CONTROL PANEL & 480V SWGR HAVE BEEN INSTALLED IN 2001 UNDER IDOT MAINTENANCE CONTRACT AND NOT SHOWN ON THESE DRAWINGS.
2. ALL DEMOLITION WORK TO BE COORDINATED WITH NEW CONSTRUCTION AND MAINTENANCE OF SERVICE AS THE SPECIFIED AND APPROVED MANUFACTURER'S SHOP DRAWINGS. WORK DEMO DWGS WITH DWG'S E-5 AND E-6.
3. CONTRACTOR SHALL VISIT THE SITE IN ORDER TO FAMILIARIZE HIMSELF WITH THE CONDITIONS UNDER WHICH HE WILL PERFORM THE WORK.
4. CONTRACTOR TO DISCONNECT AND REMOVE ALL POWER, CONTROL & INSTRUMENTATION WIRING INCLUDING CONDUIT AND ASSOCIATED EQUIPMENT FOR THE FOLLOWING:
   A) MAIN PUMPS 1 THRU 6
   B) LOW FLOW PUMP 7
   C) NORTH BLOWER
   D) SOUTH BLOWER
   E) TRASH RAKE
   F) SOUTH DUCT HEATER 1
   G) SOUTH DUCT HEATER 2
5. CONTRACTOR SHOULD NOT DISCONNECT CONTROL WIRING BETWEEN THE FOLLOWING CABINETS:
   A) MCC (PUMP CONTROL) AND SCADA
   B) MCC (PUMP CONTROL) AND CONTROL PANEL
   C) CONTROL PANEL AND SCADA
   D) MCC AND LIGHTING TR-2
6. CONTRACTOR SHOULD NOT REMOVE CONDUITS AND WIRING FOR THE EXISTING TELEPHONE & RADIO SERVICE. THEY SHOULD REMAIN IN PLACE AND SHALL BE REROUTED WITH RELOCATION OF HAR, AEGIS AND SCADA RADIO CABINETS AS SHOWN ON DWG E-5.

CONTINUED BELOW

DEMOLITION NOTES:

7. CONTRACTOR TO DISCONNECT AND REMOVE CABLES AND CONDUITS FROM CONTROL PANEL TO EXISTING FLOAT TERMINAL BOX. DISCONNECT EXISTING FLOAT SWITCHES FROM FLOAT TERMINAL BOX AND REMOVE THE BOX DO NOT REMOVE FLOAT SWITCHES (SEE DWG E-5).
8. CONTRACTOR TO DISCONNECT AND REMOVE ALL LIGHTS, RECEPTACLES AND SWITCHES INCLUDING WIRING AND CONDUIT.
9. EXISTING GROUNDING SYSTEM TO BE REMAINED IN PLACE.
10. ALL UNUSED CONDUIT OPENINGS AND CONDUITS SHALL BE SEALED.
11. ALL DEMOLITION WORK ASSOCIATED WITH DISCONNECTION AND REMOVAL OF THE EXISTING COMED TRANSFORMERS FROM COMED VAULT SHALL BE PERFORMED BY COMED.
12. ALL ELECTRICAL DEMOLITION WORK TO BE COORDINATED WITH MECHANICAL DEMOLITION DRAWINGS DM-1, DM-2, DM-3 AND DM-4.
13. CONTRACTOR TO DISCONNECT AND REMOVE WIRING AND CONDUIT FOR THE HAR ANTENNA.

DESIGNED BY ADRIAN C. CUSON
DRAWN BY ADRIAN C. CUSON
TRACED BY C. BACALZO
CHECKED BY J.E. FRANKLIN
APPROVED BY _____
ELECTRICAL ENGINEER

1 0 1 2 3 4 5 — 1/2" = 1'-0"

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60193-2801
www.stanleygroup.com
Illinois Firm Registration No.: 184-00533

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DEMOLITION
ELECTRICAL PLANS & SECTIONS

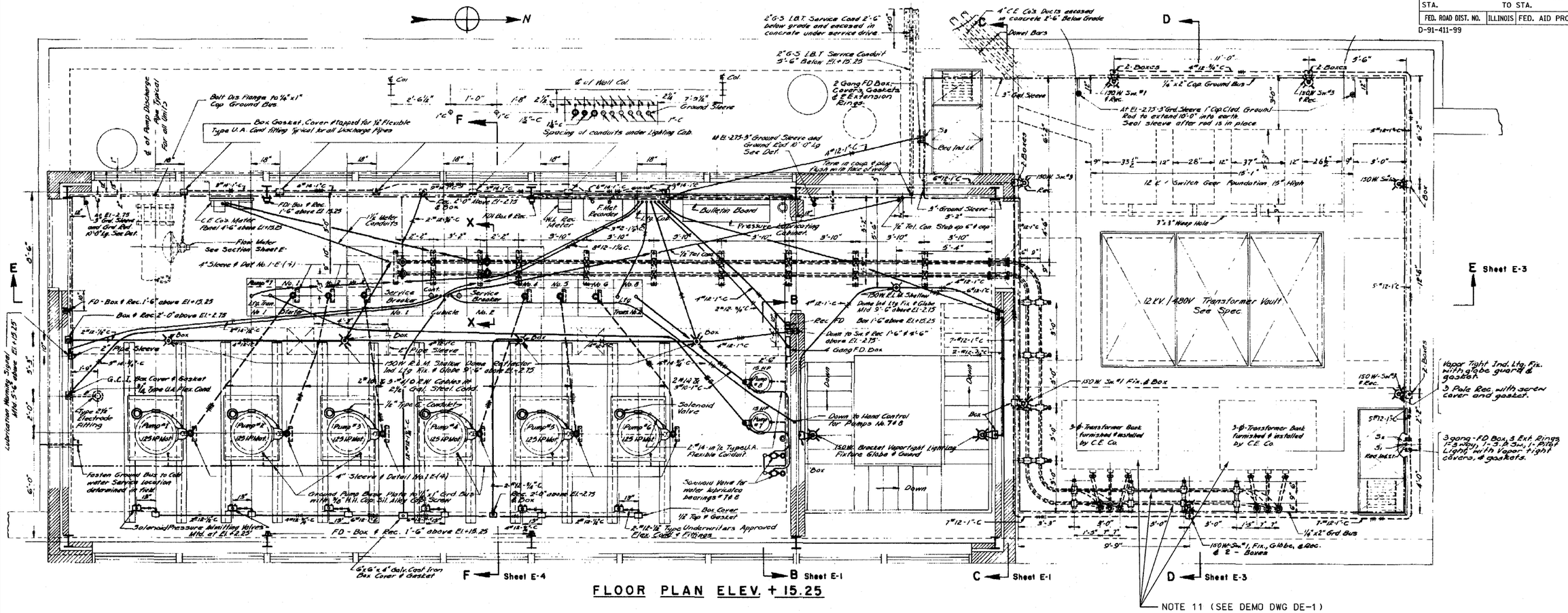
SCALE: VERT. AS NOTED
HORIZ.
DATE: 3/23/2010
DRAWN BY: B.K.
CHECKED BY: M.Z.

PLOT DATE = 3/22/2010
FILE NAME = D:\08828\26-shts-DE-01.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

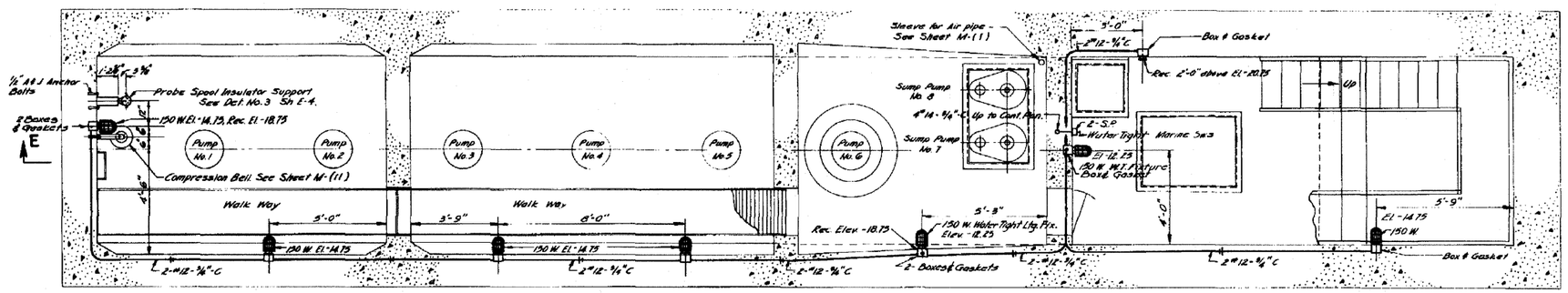
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	68
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



FLOOR PLAN ELEV. + 15.25



FLOOR PLAN ELEV. - 20.75

DEMOLITION NOTES:

SEE DRAWING DE-1 FOR DEMOLITION NOTES

2 1 0 2 4 6 — 3/8" = 1'-0"

DESIGNED BY Adrian C. Cuson
DRAWN BY Adrian C. Cuson
TRACED BY C. Bacalzo
CHECKED BY J.E. Franklin
APPROVED BY [signature]
ELECTRICAL ENGINEER

PLOT DATE = 3/22/2010
FILE NAME = D:\080825-sht\E-DE-02.dgn
PLOT SCALE = 1.0
USER NAME = #USER#

REVISIONS NAME	DATE

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No. 184-006533

ILLINOIS DEPARTMENT OF TRANSPORTATION

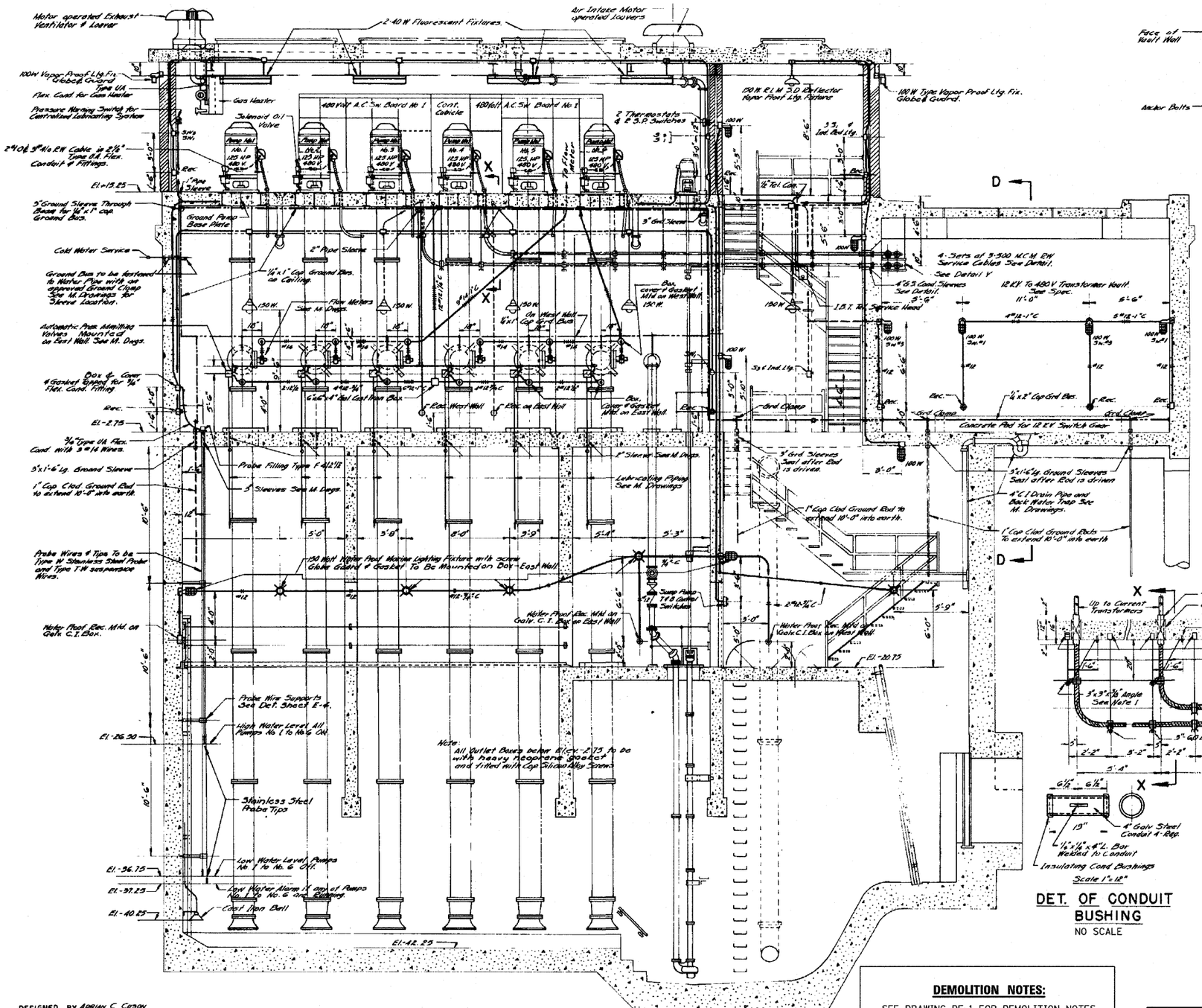
DEMOLITION ELECTRICAL PLANS

SCALE: VERT. 3/8"=1'-0" HORIZ.
DATE: 3/23/2010
DRAWN BY: B.K.
CHECKED BY: M.Z.

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	69
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



DEMOLITION NOTES:

SEE DRAWING DE-1 FOR DEMOLITION NOTES

1 0 1 2 3 4 5 — 1/2" = 1'-0"

2 1 0 2 4 6 — 3/8" = 1'-0"

4 3 2 1 0 4 8 — 3/16" = 1'-0"

DESIGNED BY ADRIAN C. CUSON

DRAWN BY ADRIAN C. CUSON

TRACED BY C. BACALZO

CHECKED BY J.E. FRANKLIN

APPROVED BY _____
ELECTRICAL ENGINEER

PLOT DATE = 3/22/2010
FILE NAME = D:\060529-shts-DE-03.dgn
PLOT SCALE = 1.0000
USER NAME = #USER#

REVISIONS	
NAME	DATE

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com
Illinois Firm Registration No. 184-001533

ILLINOIS DEPARTMENT OF TRANSPORTATION

DEMOLITION
ELECTRICAL LONGITUDINAL SECTIONS

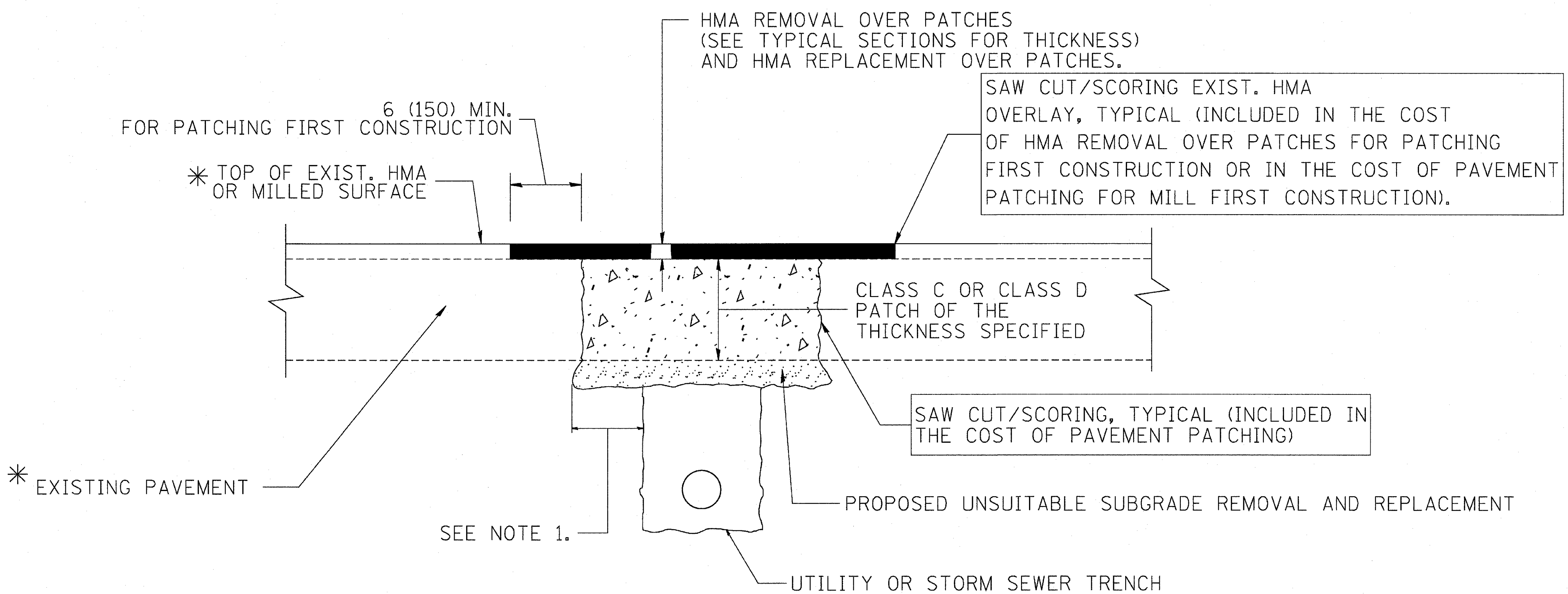
SCALE: VERT. AS NOTED
HORIZ.
DATE: 3/23/2010

DRAWN BY: B.K.
CHECKED BY: M.Z.

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	70
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST $4\frac{1}{2}$ INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

REVISIONS NAME	DATE
R. SHAH	01/14/95
R. SHAH	03/23/95
R. SHAH	04/24/95
A. HOUSEH	03/15/96
A. ABBAS	03/21/97
A. ABBAS	01/20/98
ART ABBAS	04/27/98
R. BORO	01/01/07
R. BORO	09/04/07
K. ENG	10/27/08

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT

SCALE: VERT. HORIZ. NONE
3/23/2010

DRAWN BY
CHECKED BY

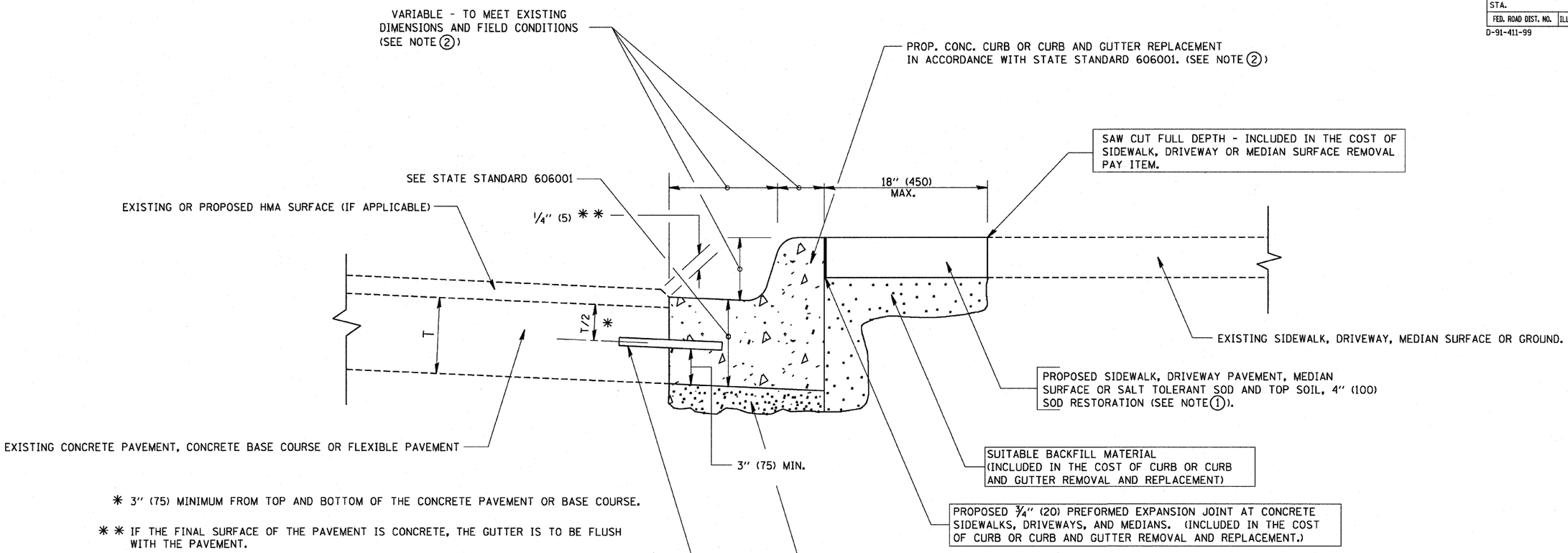
BD400-04 (BD-22)

PLOT DATE = 3/22/2010
FILE NAME = D160828-sht-BD-22.dgn
PLOT SCALE = 1:99.9998
USER NAME = $USER$

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	71
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

* * IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTE: (1) SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SALT TOLERANT SOD AND TOP SOIL, 4" (100) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

(2) CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

(3) FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

(4) LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

(5) THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

(6) THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

(7) THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

BASIS OF PAYMENT:

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
A. HOUSEH	03/11/94
R. SHAH	02/24/95
R. SHAH	03/02/95
R. SHAH	08/19/96
R. SHAH	09/12/96
R. SHAH	09/19/96
R. SHAH	10/03/96
A. ABBAS	03/21/97
M. GOMEZ	01/22/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

SCALE: VERT. NONE HORIZ. 3/23/2010

DRAWN BY

CHECKED BY

BD600-06 (BD-24)

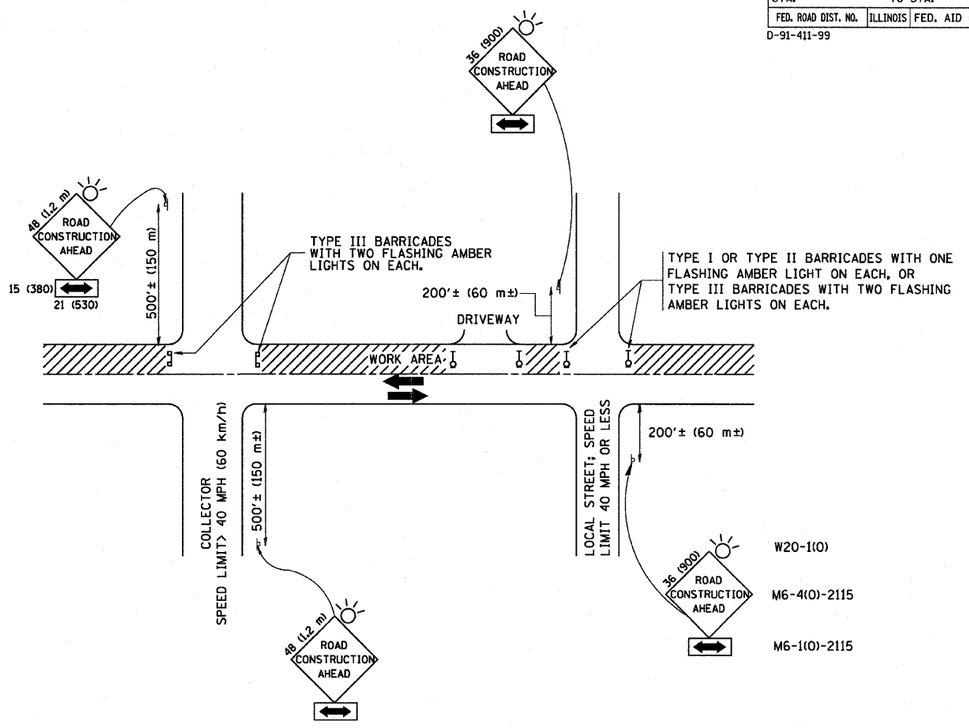
CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

PLOT DATE = 3/22/2010
FILE NAME = I:\BD600\bd-24.dgn
PLOT SCALE = 1.000 '/ IN.
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	72
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in millimeters (inches) unless otherwise shown.

REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE

3/23/2010

DRAWN BY

CHECKED BY

TC-10

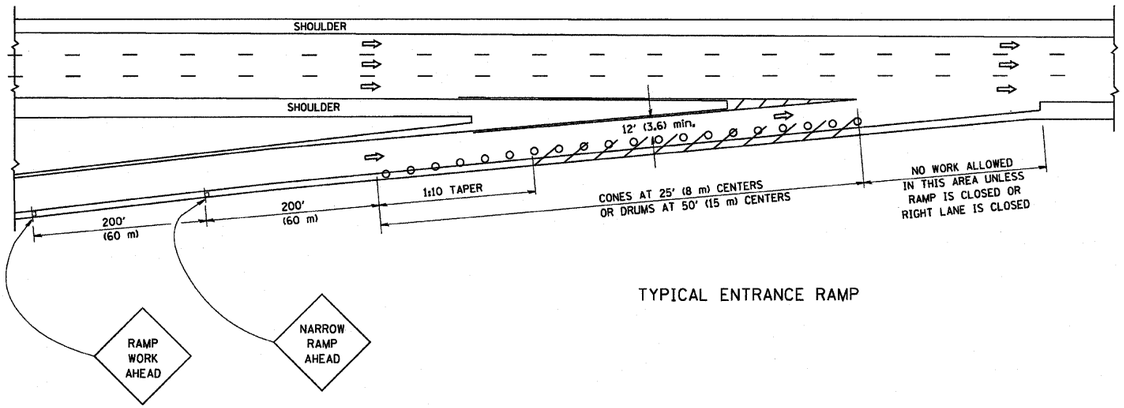
PLOT DATE = 3/22/2010
FILE NAME = D:\60828-sht-TC-10.dgn
PLOT SCALE = 1.000
USER NAME = #USER#

CREATED: 03-23-95

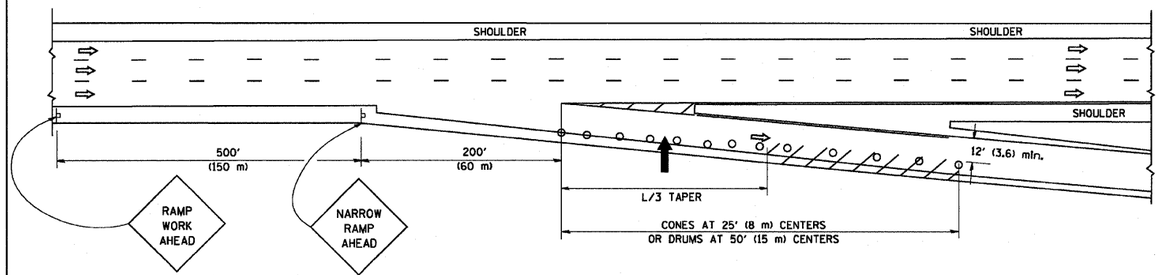
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	73
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
D-91-411-99				

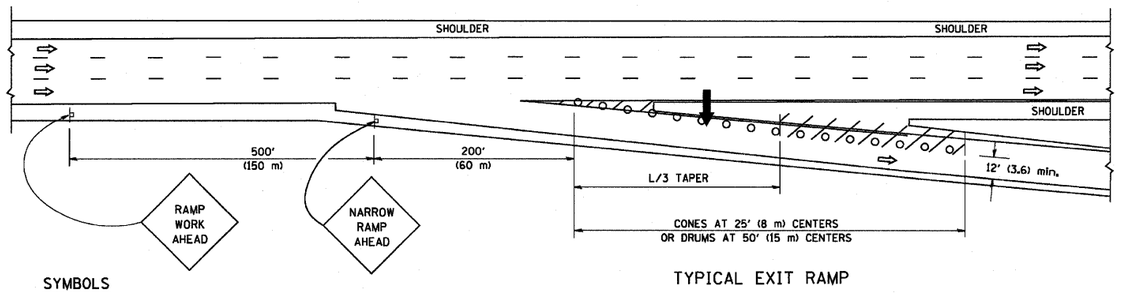
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

SYMBOLS

- ARROWBOARD
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

GENERAL NOTES

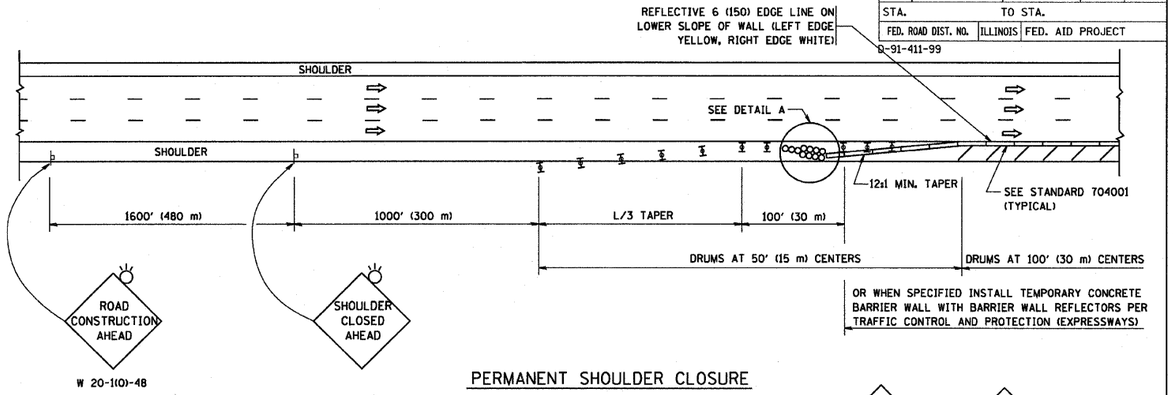
1. THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS	
	METRIC	ENGLISH
45 mph (80 km/h) OR GREATER:	L=0.65(W)(S)	L=(W)(S)

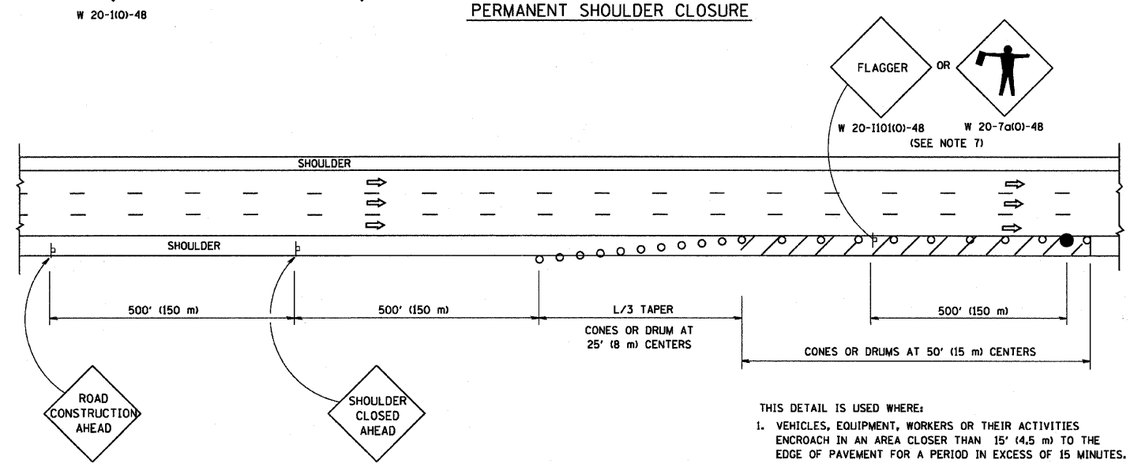
W = WIDTH OF OFFSET IN FEET (METERS)
S = NORMAL POSTED SPEED MPH (KM/H)

2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

SHOULDER CLOSURE DETAILS



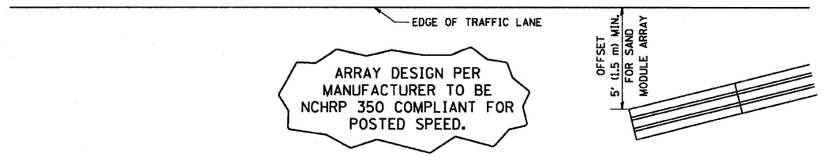
PERMANENT SHOULDER CLOSURE



THIS DETAIL IS USED WHERE:

1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.

DAYTIME SHOULDER CLOSURE



DETAIL "A"
IMPACT ATTENUATOR, TEMPORARY
(SEE NOTE 5)

5. THE IMPACT ATTENTUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE "TRAFFIC BARRIER TERMINAL, TYPE III, TEMPORARY" DEVICE TO MEET NCHRP350 FOR POSTED SPEED.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
   a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
   b. THE WORK AVTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.

   THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
DWS	11/96
JAF	12/02
NCHRP 350	04/03
JAF	2/06
SPB	1/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES PARTIAL RAMP CLOSURES

SCALE: NONE
3/23/2010

DESIGNED BY: DWS
DRAWN BY
CHECKED BY

TC-17

PLOT DATE = 3/22/2010
FILE NAME = I:\60828-dnx-TC-17.dgn
PLOT SCALE = 1.000
USER NAME = #USER#

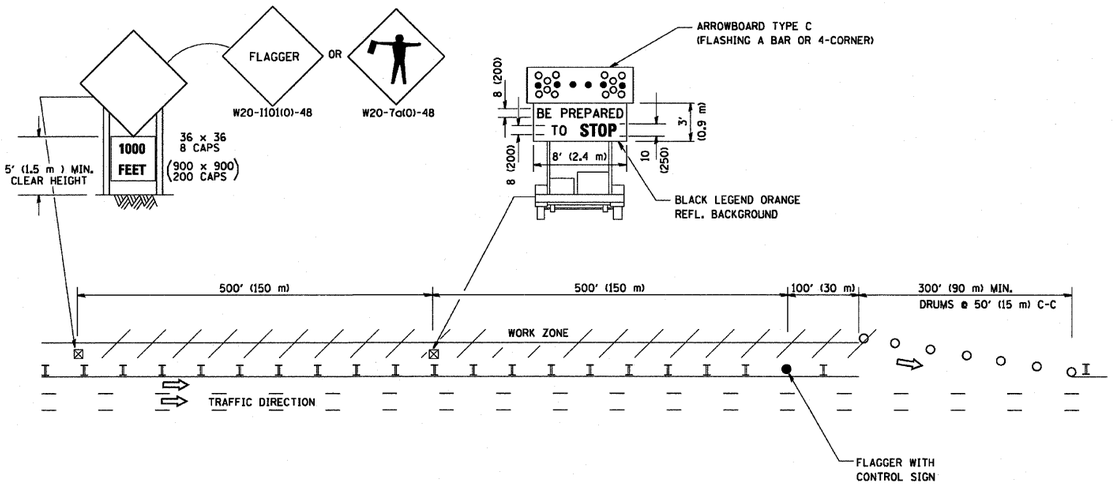
CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	74
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

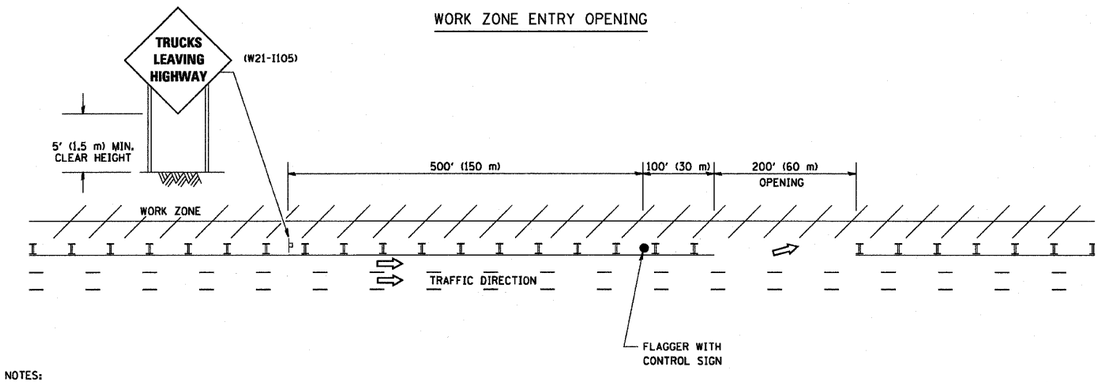
D-91-411-99

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. The Arrowboard, the Flagger Ahead trailer mounted sign, and the Trucks Leaving Highway sign shall be removed or turned away from traffic and the exit and entry openings shall be closed when the flagging operation ceases.
2. Work Zone Exit Openings should be a minimum of one half mile apart.
3. Exiting the work zone at any place other than at a Work Zone Exit Opening will be prohibited.
4. All vehicles shall enter the work zone at entry openings, using their turn signals to warn motorists

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISIONS	
NAME	DATE
DWS	8/98
JAF	4/03
JAF	2/06
SPB	1/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

SCALE: NONE

3/23/2010

DRAWN BY CADD

CHECKED BY

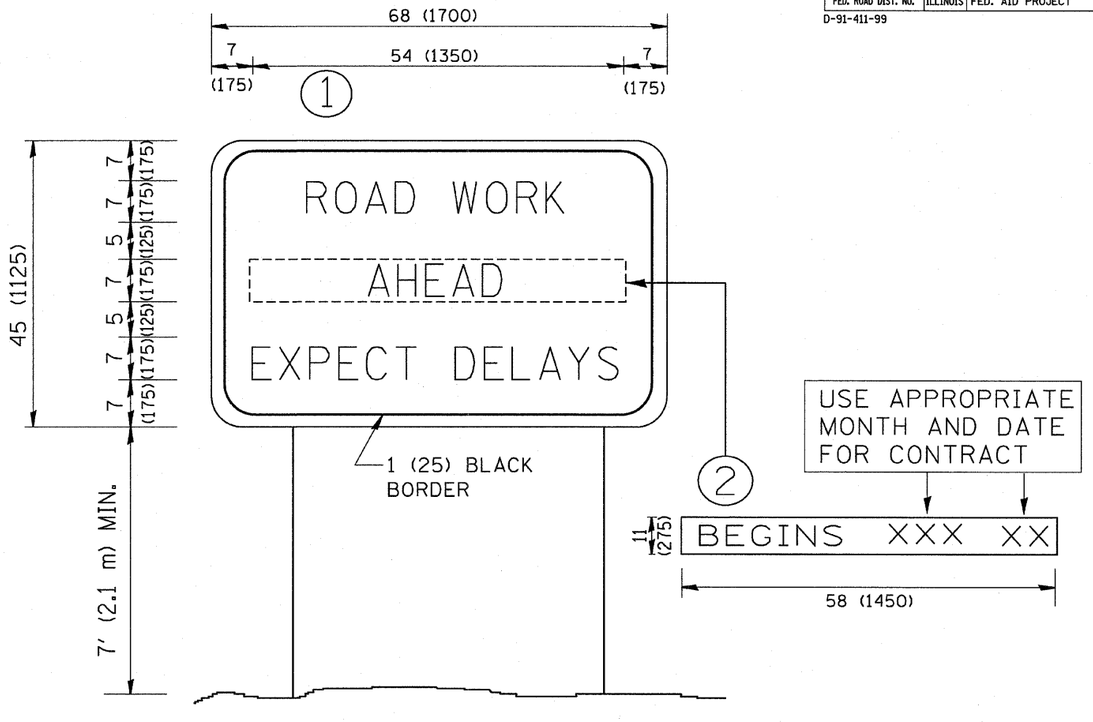
TC-18

PLOT DATE = 3/22/2010
FILE NAME = D:\60828\sht-tc-18.dgn
PLOT SCALE = 1.000
USER NAME = #USER#

CONTRACT NO. 60828

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	1999-161-1	COOK	75	75
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-411-99



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
R. MIRS	9-15-97
R. MIRS	12-11-97
T. RAMMACHER	2-2-99
C. JUCIUS	1-31-07

ILLINOIS DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

SCALE: NONE

3/23/2010

DRAWN BY DESIGN

CHECKED BY TC22

PLOT DATE = 3/22/2010
FILE NAME = c:\projects\tc-22.dgn
PLOT SCALE = 1.000
USER NAME = *USER*