

GENERAL

A PRECONSTRUCTION CONFERENCE SCHEDULED BY THE CITY OF KIRTLAND ENGINEER SHALL BE HELD PRIOR TO ANY WORK STARTING. IN ADDITION, THE CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE TO THE KIRTLAND CITY ENGINEER, THE LAKE COUNTY SANITARY ENGINEER AND CONSUMERS OHIO WATER COMPANY PRIOR TO BEGINNING WORK TO ARRANGE FOR INSPECTION.

THE STANDARD SPECIFICATIONS OF THE OHIO DEPARTMENT OF TRANSPORTATION, 1997 EDITION, INCLUDING ALL SUPPLEMENTAL SPECIFICATIONS AND DRAWINGS, SHALL GOVERN THIS PROJECT. FOR PURPOSES OF THIS PLAN, REFERENCES TO DIRECTOR OR ENGINEER SHALL BE CONSTRUED TO MEAN THE KIRTLAND CITY ENGINEER AND/OR HIS REPRESENTATIVE.

ALL WORK CONTEMPLATED SHALL BE GOVERNED BY THE RULES, REGULATIONS AND SPECIFICATIONS OF THE CITY OF KIRTLAND ENGINEER, THE LAKE COUNTY SANITARY ENGINEER AND CONSUMERS OHIO WATER COMPANY AND AT ALL TIMES BE SUBJECT TO THEIR DIRECT SUPERVISION AND INSPECTION.

ALL WORK CONTEMPLATED UNDER THIS CONTRACT SHALL COMPLY WITH THE U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.

MATERIAL TESTING AND PERMITS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ALL MATERIAL AND EQUIPMENT TESTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR THIS PROJECT.

THE EXECUTED PROJECT CONTRACT SHALL SERVE TO FULFILL THE CITY OF KIRTLAND'S PERMITTING REQUIREMENTS.

UTILITIES

THE LOCATION OF ALL EXISTING UTILITY FACILITIES ARE SHOWN ON THE PLANS FROM DATA AVAILABLE AT THE TIME OF THE FIELD SURVEY IN ACCORDANCE WITH SECTION 153.64 OF THE OHIO REVISED CODE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF THE EXISTING UTILITY OWNERS AND UTILITY PROTECTION SERVICE LISTED BELOW IN ACCORDANCE WITH SECTION 154.64 OF THE ORC AND AS OUTLINED IN THE PROJECT SPECIFICATIONS.

THE UTILITY OWNERSHIPS ARE AS FOLLOWS:

OHIO UTILITY PROTECTION SERVICE 106 WEST RYAN, ROOM 427 YOUNGSTOWN, OHIO 44051 PHONE: (800) 362-2746	THE EAST OHIO GAS CO. 1201 EAST 55TH STREET CLEVELAND, OHIO 44103 PHONE: (216) 432-6803	LAKE COUNTY ENGINEER'S OFFICE 550 BLACKBROOK ROAD PAINESVILLE, OHIO 44077 PHONE: (440) 350-2770
AMERITECH 13630 LORAIN AVE. CLEVELAND, OHIO 44111 PHONE: (216) 476-8142	CONSUMERS OHIO WATER CO. 8644 STATION STREET MENTOR, OHIO 44060 PHONE: (440) 255-3421	LAKE COUNTY UTILITIES DEPT. 105 MAIN STREET PAINESVILLE, OHIO 44077 PHONE: (440) 350-2645
CLEVELAND ELECTRIC ILLUMINATING CO. 2210 SOUTH RIDGE, WEST ASHTABULA, OHIO 44004 PHONE: (216) 352-9361	MEDIA ONE 7820 DIVISION DRIVE MENTOR, OHIO 44060 PHONE: (440) 974-3401	T.C.I. CABLEVISION OF OHIO, INC. 7757 ALBURN ROAD PAINESVILLE, OHIO 44077 PHONE: (440) 942-0870

THE OWNER OF THE UNDERGROUND UTILITY FACILITY SHALL, WITHIN 48 HOURS, EXCLUDING SATURDAY, SUNDAYS AND LEGAL HOLIDAYS, AFTER NOTICE IS RECEIVED, STAKE, MARK OR OTHERWISE DESIGNATE THE LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE TOGETHER WITH THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO (2) DAYS AHEAD OF THE PLANNED CONSTRUCTION.

CONTRACTORS RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES

AT POINTS WHERE THE CONTRACTOR'S OPERATIONS ARE ADJACENT TO PROPERTIES OF TELEGRAPH, TELEPHONE AND POWER COMPANIES, OR ARE ADJACENT TO OTHER PROPERTY, DAMAGE TO WHICH MIGHT RESULT IN CONSIDERABLE EXPENSE, LOSS, OR INCONVENIENCE, WORK SHALL NOT BE COMMENCED UNTIL ALL ARRANGEMENTS NECESSARY FOR THE PROTECTION THEREOF HAVE BEEN MADE.

THE CONTRACTOR SHALL COOPERATE WITH THE OWNERS OF ANY UNDERGROUND OR OVERHEAD UTILITY LINES IN THEIR REMOVAL AND REARRANGEMENT OPERATIONS IN ORDER THAT THESE OPERATIONS MAY PROGRESS IN A REASONABLE MANNER, THAT DUPLICATION OF REARRANGEMENT WORK MAY BE REDUCED TO A MINIMUM, AND THAT SERVICES RENDERED BY THOSE PARTIES WILL NOT BE UNNECESSARILY INTERRUPTED.

IN THE EVENT OF INTERRUPTION TO UNDERGROUND OR OVERHEAD UTILITY SERVICES AS A RESULT OF ACCIDENTAL BREAKAGE OR AS A RESULT OF BEING EXPOSED OR UNSUPPORTED, THE CONTRACTOR SHALL IMMEDIATELY ALERT THE OCCUPANTS OF NEARBY PREMISES AS TO ANY EMERGENCY AND/OR INTERRUPTION OF SERVICE THAT THE CONTRACTOR MAY CREATE OR DISCOVER AT OR NEAR SUCH PREMISES. THE CONTRACTOR SHALL THEN NOTIFY THE ENGINEER AND THE OWNER OR OPERATOR OF THE UTILITY FACILITY OF THE DISRUPTION AND SHALL COOPERATE WITH SAID UTILITY OWNER OR OPERATOR IN THE RESTORATION OF SERVICE. IF WATER SERVICE IS INTERRUPTED, REPAIR WORK SHALL BE CONTINUOUS UNTIL THE SERVICE IS RESTORED. NO WORK SHALL BE UNDERTAKEN AROUND FIRE HYDRANTS UNTIL PROVISIONS FOR CONTINUED SERVICE HAVE BEEN APPROVED BY THE LOCAL FIRE AUTHORITY.

SUBSURFACE INVESTIGATIONS

IT IS THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN INVESTIGATION OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS PROPOSAL.

USE OF PRIVATE PROPERTY

THE CONTRACTOR CAN USE PRIVATE PROPERTY FOR THE STORAGE OF EQUIPMENT AND MATERIALS ONLY WITH A WRITTEN AGREEMENT WITH THE PROPERTY OWNER. THE CONTRACTOR SHALL PROVIDE THIS AGREEMENT TO THE ENGINEER PRIOR TO ANY USE OF PRIVATE PROPERTY.

PROTECTION AND RESTORATION OF PROPERTY

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL PUBLIC AND PRIVATE PROPERTY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE OR INJURY TO PROPERTY AND/OR PERSONS DURING THE PROSECUTION OF THE WORK, RESULTING FROM ANY ACT, OMISSION, NEGLIGENCE OR MISCONDUCT IN HIS MANNER OR METHOD OF EXECUTING THE WORK, OR AT ANY TIME DUE TO DEFECTIVE WORK OR MATERIALS, AND SAID RESPONSIBILITY WILL NOT BE RELEASED UNTIL THE PROJECT SHALL HAVE BEEN COMPLETED AND ACCEPTED.

DUST NUISANCE ORIGINATING FROM ANY OPERATIONS EITHER INSIDE OR OUTSIDE THE RIGHT-OF-WAY SHALL BE CONTROLLED BY THE CONTRACTOR IN ACCORDANCE WITH LOCAL ORDINANCES AND REGULATIONS AT THE SOLE EXPENSE OF THE CONTRACTOR.

WHEN OR WHERE ANY DIRECT OR INDIRECT DAMAGE OR INJURY IS DONE TO PUBLIC OR PRIVATE PROPERTY BY OR ON ACCOUNT OF ANY ACT, OMISSION, NEGLIGENCE OR MISCONDUCT IN THE EXECUTION OF THE WORK, OR IN CONSEQUENCE OF THE NONEXECUTION THEREOF BY THE CONTRACTOR, HE SHALL RESTORE, AT HIS OWN EXPENSE, SUCH PROPERTY TO A CONDITION SIMILAR OR EQUAL TO THAT EXISTING BEFORE SUCH DAMAGE OR INJURY WAS DONE BY REPAIRING, REBUILDING OR OTHERWISE RESTORING AS MAY BE DIRECTED, OR SHALL MAKE GOOD SUCH DAMAGE OR INJURY IN AN ACCEPTABLE MANNER.

WHEN MAIL BOXES, ROAD OR STREET NAME SIGNS AND SUPPORTS INTERFERE WITH CONSTRUCTION, THE CONTRACTOR SHALL REMOVE AND ERECT THEM IN A TEMPORARY LOCATION DURING CONSTRUCTION IN A MANNER SATISFACTORY TO AND AS DIRECTED BY THE ENGINEER. AFTER COMPLETION OF THE CONSTRUCTION AND BEFORE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL ERECT THE MAIL BOXES, ROAD OR STREET NAME SIGNS AND SUPPORTS IN THEIR ORIGINAL LOCATION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

MATERIAL SPECIFICATIONS

MATERIAL SPECIFICATIONS CALLED FOR ON THE PLANS REPRESENT THE MINIMUM REQUIRED FOR EACH APPLICATION. THE OWNER MAY REQUEST OR THE CONTRACTOR MAY DESIRE TO SUBSTITUTE ALTERNATE MATERIALS. ANY SUCH SUBSTITUTIONS MUST BE EQUIVALENT IN QUALITY TO THE MATERIAL CALLED FOR AND MUST BE APPROVED IN WRITING BY THE APPROVING AGENCIES AND THE CONSULTING ENGINEER.

MAINTENANCE OF TRAFFIC NOTES

NOTIFICATION

ALL LOCAL LAW ENFORCEMENT AGENCIES, FIRE DEPARTMENTS, ENGINEERS AND SCHOOL DISTRICTS SHALL BE NOTIFIED AT LEAST ONE (1) WEEK PRIOR TO THE ACTUAL START OF CONSTRUCTION.

SYSTEM FOR MAINTAINING TRAFFIC

TWO-WAY TRAFFIC SHALL BE MAINTAINED ON ALL ROADS AT ALL TIMES. WHENEVER ANY TRAVELED SURFACE IS BEING WORKED ON OR OTHERWISE NOT SUITABLE FOR SAFE AND CONVENIENT USE BY VEHICLES AND PEDESTRIANS, TRAFFIC CONTROL DEVICES SUFFICIENT TO PROTECT SUCH AREAS AND TO ASSURE THE SAFE PASSAGE OF VEHICULAR TRAFFIC SHALL BE INSTALLED AND MAINTAINED. SUCH TRAFFIC CONTROL DEVICES AND THE MANNER IN WHICH THEY ARE USED SHALL BE CONSISTENT WITH THESE PLANS AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, HEREINAFTER REFERRED TO AS THE MANUAL. WHENEVER THE ENGINEER DEEMS IT NECESSARY, HE MAY DIRECT THAT ADDITIONAL OR ALTERNATIVE DEVICES BE USED.

ALL EXISTING LANES SHALL BE OPENED AND MAINTAINED DURING NON-WORKING HOURS.

TRAFFIC CONTROL DEVICES SHALL BE SET UP PRIOR TO THE START OF CONSTRUCTION AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH SPECIAL CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS THEY ARE NEEDED AND SHALL BE IMMEDIATELY REMOVED THEREAFTER. WHERE OPERATIONS ARE PERFORMED IN PHASES, THERE SHALL BE IN PLACE ONLY THOSE DEVICES THAT APPLY TO THE CONDITION PRESENT DURING THE PHASE IN PROGRESS. ALL SIGNS WITH MESSAGES WHICH DO NOT APPLY DURING A CERTAIN PERIOD SHALL BE COVERED OR SET ASIDE OUT OF THE VIEW OF TRAFFIC. CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED IN ACCORDANCE WITH SECTION 641.134 OF THE OHIO SPECIFICATIONS BEFORE ANY SECTION OF ROADWAY IS MADE AVAILABLE TO USE BY TRAFFIC.

ALL PERMANENT AND TEMPORARY PAVEMENT MARKINGS ARE TO BE MAINTAINED THROUGHOUT THE PROJECT. ANY DAMAGED OR FADED PAVEMENT MARKINGS SHALL BE CORRECTED WITHIN EIGHT HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE PROBLEM. IF WEATHER IS NOT CONDUCTIVE TO PAVEMENT MARKING INSTALLATION THEN REPAIRS SHALL BE MADE ON THE FIRST WEATHER PERMISSIVE DAY AFTER NOTIFICATION.

WORK HOURS

NO WORK BETWEEN THE HOURS OF 7:30 P.M. AND 7:30 A.M. SHALL BE PERMITTED UNLESS OTHERWISE SPECIFICALLY APPROVED BY THE ENGINEER.

ADVANCE WARNING SIGNS

ALL ADVANCE WARNING SIGNS FOR ANY CONDITION WHICH RESTRICTS TRAFFIC SHALL BE ERECTED BEFORE ANY SUCH RESTRICTION IS PUT INTO EFFECT. ALL SUCH SIGNS SHALL BE COVERED OR REMOVED FROM THE VIEW OF TRAFFIC WHENEVER THEY ARE NOT APPLICABLE.

PROTECTION OF PUBLIC

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COMPLETE SCHEDULE OF CONSTRUCTION OPERATIONS ALONG WITH PLANS DETAILING TRAFFIC CONTROL FOR EACH PHASE OF CONSTRUCTION AND PROPOSED METHODS TO MAINTAIN ACCESS TO ALL ADJOINING PROPERTIES. THESE PLANS SHALL SHOW ALL SAFETY EQUIPMENT THE CONTRACTOR PLANS TO UTILIZE, ALONG WITH LANE AND/OR ROADWAY CLOSURES OR DIVERSIONS THAT MAY BE REQUIRED TO PROVIDE THIS PROTECTION. THESE PLANS MUST BE SUBMITTED AND APPROVED PRIOR TO COMMENCING ANY WORK. NO WORK SHALL BE STARTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

SHOULD ANY OF THE CONTRACTOR'S PLANS FOR PUBLIC PROTECTION BE DEEMED INADEQUATE BY THE ENGINEER, ADDITIONAL CLOSURES AND/OR DIVERSIONS WILL BE REQUIRED AT NO COST TO THE CITY.

RESTRICTIONS

THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND REMOVE ALL SIGNS AND ROADWAY MARKINGS REQUIRED FOR MAINTENANCE OF TRAFFIC DURING CONSTRUCTION AS SHOWN ON THESE PLANS. ANY CONFLICTING SIGNS, SIGNALS, PAVEMENT MARKINGS OR OTHER TRAFFIC CONTROL DEVICES SHALL BE IMMEDIATELY REMOVED.

NO STOPPAGE OF TRAFFIC, ESTABLISHMENT OF LANE RESTRICTIONS OR CHANGE OF TRAFFIC PATTERNS SHALL OCCUR WITHOUT CITY OF KIRTLAND LAW ENFORCEMENT OFFICER(S) WITH PATROL CAR(S) AT EACH LOCATION TO DIRECT TRAFFIC UNLESS OTHERWISE APPROVED BY THE ENGINEER.

FAILURE TO COMPLY

FOR ANY FAILURE TO COMPLY WITH PROVISIONS FOR TRAFFIC CONTROL SET OUT IN THESE PLANS AND NOTES OR WITH THE PROVISIONS OF THE MANUAL, THE HIGHWAY IN THE VICINITY OF THE WORK AREA SHALL BE CONSIDERED IN A CONDITION UNACCEPTABLE FOR THE SAFETY AND CONVENIENT USE BY THE TRAVELING PUBLIC. ANY FAILURE TO KEEP THE HIGHWAY IN THE VICINITY OF THE WORKING AREA IN A CONDITION ACCEPTABLE FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC SHALL BE CONSIDERED A BREACH OF THIS CONTRACT. WORK SHALL BE SUSPENDED UNTIL THE CONTRACTOR COMPLIES WITH THE PROVISIONS OF THE FOREMENTIONED ITEMS.

TEMPORARY PAVEMENT

TEMPORARY PAVEMENT SHALL BE REQUIRED FOR TRAFFIC MAINTENANCE AT VARIOUS LOCATIONS THROUGHOUT THE PROJECT. ALL COSTS FOR INSTALLING, MAINTAINING AND SUBSEQUENT REMOVAL OF SAID TEMPORARY PAVEMENT SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

SIGNS

SIGN DIMENSION AND SPECIFICATIONS, INCLUDING LETTER SIZES, SHALL BE AS PROVIDED IN THE MANUAL OR SIGN DESIGN DRAWINGS PROVIDED IN THESE PLANS. THE SIGNS SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER PRIOR TO THE START OF THE PROJECT. ALL COST FOR INSTALLING, MAINTAINING AND SUBSEQUENT REMOVAL OF SAID SIGNS SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

SIGN SUPPORTS

SIGN SUPPORTS SHALL BE OF SUFFICIENT SIZES AND HEIGHT TO SUPPORT THE SIGNS AT THE HEIGHT INDICATED IN THE MANUAL. SUPPORTS SHALL ALSO BE ADEQUATE IN MASS AND STABILITY TO PREVENT SIGNS FROM BEING BLOWN OVER BY WIND OR VEHICULAR-GENERATED AIR TURBULENCE. ALL COSTS FOR INSTALLING, MAINTAINING AND SUBSEQUENT REMOVAL OF SAID SIGNS SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

ITEM 632 POWER SUPPLY FOR TRAFFIC SIGNALS

ELECTRIC POWER SHALL BE OBTAINED FROM THE CLEVELAND ELECTRIC ILLUMINATING COMPANY AT THE LOCATION INDICATED ON THE SIGNAL PLAN. POWER SUPPLIED SHALL BE 120 VOLTS. POWER SERVICE SHALL INCLUDE A 2" CONDUIT RISER AND A SEPARATE AND INDIVIDUAL CONDUIT TO THE CONTROLLER (2" MINIMUM).

ITEM 625 TRENCH AS PER PLAN

THIS ITEM SHALL INCLUDE ANY TRENCH NECESSARY FOR THE INSTALLATION OF CONDUIT AND WIRE FOR THE TRAFFIC SIGNALS AND LOOP DETECTORS. TRENCH IN PAVEMENTS OF ANY THICKNESS SHALL ALSO BE INCLUDED IN THIS ITEM. ALL TRENCHING SHALL BE DONE AND CONDUIT INSTALLED PRIOR TO FINAL PAVEMENT AND/OR SIDEWALK BEING INSTALLED.

ITEM 625 - PULL BOX MISC.: (13"x24")

SIZE: BOX - 13" x 24" x 26" DEEP (NOMINAL).

COVER AND BOX SHALL HAVE A MINIMUM VERTICAL TEST LOAD OF 10,000 LBS. OVER A 10" x 10" AREA PER ASTM C-857 AND SO BE IDENTIFIED ON THE SURFACE, ALL IN ACCORDANCE WITH THE WESTERN UNDERGROUND COMMITTEE - GUIDE 3.6 (W.U.C. 3.6). THE BOX MUST ALSO MEET THE STRUCTURAL REQUIREMENTS FOR LATERAL (SIDE) LOADING AS DEFINED IN W.U.C. GUIDE 3.6. THE PULL BOX SHALL BE SUITABLE FOR INSTALLATION AND USE THROUGH A TEMPERATURE RANGE OF -40° C TO +90° C.

THE PULL BOX COVER AND RING SHALL BE MADE OF HIGH DENSITY POLYMER CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 20,000 P.S.I. THE BODY OF THE BOX SHALL BE MADE OF FIBERGLASS REINFORCED POLYESTER (FRP). HIGH DENSITY POLYETHYLENE (HDPE), STRUCTURAL FOAM, OR STRUCTURAL THERMOPLASTIC SHALL NOT BE ACCEPTABLE.

THE COVER SHALL BE FASTENED TO THE BOX WITH TWO STAINLESS STEEL HEX HEAD BOLTS. THE BOX SHALL HAVE A "SELF-LOCATING" OR "FLOATING" THREADED INSERT MADE OF STAINLESS STEEL AND SHALL BE REPLACEABLE. COVER SURFACE SHALL BE SKID RESISTANT AND SHALL HAVE A MINIMUM COEFFICIENT OF FRICTION OF 0.50.

IDENTIFICATION "TRAFFIC" SHALL BE PERMANENTLY MOLDED ON THE TOP SURFACE OF THE PULL BOX COVER.

THE BOX SHALL BE WIDER AT THE BASE FOR STABILITY AND TAPERED INWARDS TOWARD THE TOP. THE BOX SHALL BE PROVIDED WITH A BOTTOM FLANGE AT LEAST 1-1/4" WIDE TO PREVENT SETTLING IN FIRM SOIL WHEN SUBJECTED TO SPECIFIED LOADS. TOP REGION OF THE BOX SHALL BE CONFIGURED TO PROVIDE "KEYING IN" TO LOCK THE BOX IN CONCRETE WHEN INSTALLED IN SIDEWALKS.

IF IT IS NECESSARY TO MAKE CONDUIT ENTRY HOLES IN THE FIELD, IT SHOULD BE POSSIBLE TO DO SO WITH A SIMPLE TOOL SUCH AS A WOOD HOLE CUTTING SAW.

NOTE: THE EXACT LOCATIONS OF PULL BOXES ARE TO BE STAKED AND CHECKED BY THE ENGINEER PRIOR TO PLACEMENT TO VERIFY CLEARANCE OF UNDERGROUND FACILITIES AND ANY ABOVE GROUND OBSTRUCTIONS. IF THERE ARE ANY CONFLICTS, THEY ARE TO BE ADJUSTED AS DIRECTED BY THE ENGINEER. PAYMENT FOR THIS IS INCIDENTAL TO ALL 625 ITEMS.

PULL BOXES ARE TO BE PROVIDED A 4" DRAIN TO THE NEAREST STORM INLET, UNDERDRAIN OR OTHER SUITABLE OUTLET FROM THE PULL BOX. TWENTY (20) FEET OF 4" PVC CONDUIT SHALL BE USED AND BE INCLUDED IN THE PRICE OF THE PULL BOX.

ITEM 632 VEHICULAR SIGNAL HEAD 12" LENS POLYCARBONATE

SECTION 732.01 OF THE SPECIFICATIONS IS MODIFIED FOR THIS PROJECT AS FOLLOWS:

- A) SIGNAL HEADS AND WSORS SHALL BE CONSTRUCTED OF POLYCARBONATE PLASTIC AND MEET ITS SPECIFICATIONS.
- B) PLASTIC LENSES SHALL BE USED.
- C) PROPER EXTERIOR COLORS SHALL BE OBTAINED BY THE USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING.

ITEM 632 LOOP DETECTOR UNITS, DELAY AND EXTENSION TYPE AS PER PLAN

- A) EACH AMPLIFIER SHALL BE NUMBERED AND LABELED TO CORRESPOND TO ITS LOOP NUMBER, DIRECTION/LANE (I.E., WBL, WBLR, WBLT, . . .) AND PHASE. THE LOOP NUMBERS AND PHASE ARE SHOWN ON THE INTERSECTION SIGNAL PLANS.
- B) THE AMPLIFIER SHALL BE AUTOMATICALLY SELF TUNING, RELAY TYPE AND ALL CONTACTS SHALL BE INCLUDED IN THE WIRING HARNESS.
- C) THE UNITS' ELECTRICAL CONNECTION PLUGS OR WIRING HARNESS SHALL ALLOW READY REPLACEMENTS WITH SIGNAL CHANNEL AMPLIFIERS AS DESCRIBED IN SECTION 732.07.
- D) EACH AMPLIFIER SHALL HAVE SYSTEM LOOP OUTPUT FEATURES FOR BOTH VOLUME AND OCCUPANCY. THE COUNT OUTPUT SHALL BE WIRED SO THAT COUNTS CAN BE OBTAINED THROUGH A LAPTOP MICROCOMPUTER OR A TELEPHONE MODEM DIALED UP BY A PERSONAL COMPUTER.

LOOP DETECTOR INSTALLATION

THE SIGNAL CONTRACTOR SHALL CONTACT THE ENGINEER BEFORE INSTALLATION OF VEHICLE DETECTION LOOPS FOR ASSISTANCE IN LOCATION MARKING.

GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR THE PERIOD AS COVERED BY THE MAINTENANCE BOND FOLLOWING COMPLETION OF THE 10-DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION, THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY. EQUIPMENT, MATERIAL AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR.

THE GUARANTEE SHALL COVER ALL THE ITEMS MAKING UP THE TRAFFIC CONTROL SYSTEM: THE CONTROLLER, CABINET, DETECTOR AMPLIFIERS AND CONFLICT MONITOR.

CUSTOMARY MANUFACTURERS' GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE CITY OF KIRTLAND ENGINEER FOLLOWING ACCEPTANCE OF THE EQUIPMENT. THE FULL MANUFACTURERS' GUARANTEES (MINIMUM 12 MONTHS) SHALL GO INTO EFFECT ON THE DATE OF ACCEPTANCE BY THE CITY OF KIRTLAND.

THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

CERTIFICATION AND APPROVAL OF TRAFFIC CONTROL ITEMS

SUBMISSIONS BY THE CONTRACTOR FOR APPROVAL SHALL CONFORM WITH SECTIONS 632.03 AND 633.03 AS APPROPRIATE EXCEPT THAT FOUR (4) SETS OF INFORMATION AND SUBMISSIONS SHALL BE MADE TO THE CITY OF KIRTLAND ENGINEER FOR HIS INFORMATION AND COMMENTS.

POLE FOUNDATIONS

NOTE: THE EXACT LOCATIONS OF POLE AND PEDESTAL FOUNDATIONS ARE TO BE STAKED AND CHECKED BY THE ENGINEER PRIOR TO PLACEMENT TO VERIFY CLEARANCE OF UNDERGROUND FACILITIES AND ANY ABOVE GROUND OBSTRUCTIONS. IF THERE ARE ANY CONFLICTS, THEY ARE TO BE ADJUSTED AS DIRECTED BY THE ENGINEER. PAYMENT FOR THIS IS INCIDENTAL TO ALL 632 ITEMS.

DATE: 10-14-99 - TIME: 15:25 - H: \GT\97260\dwg\97260T07.DWG

CALCULATED
A.E.P.
CHECKED
L.M.H.

TRAFFIC CONTROL
GENERAL NOTES

LAK - 615 - 0.00

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T16