DRIVE-THRU ORDER POINT RELOCATION PLANS
FOR

STORE 13654
1130 NE DOUGLAS ST

LEES SUMMIT, JACKSON COUNTY, MISSOURI

PROJECT TEAM:

ENGINEER
KIMLEY-HORN AND ASSOCIATES, INC.
Kimley»Horn
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OWNER / DEVELOPER
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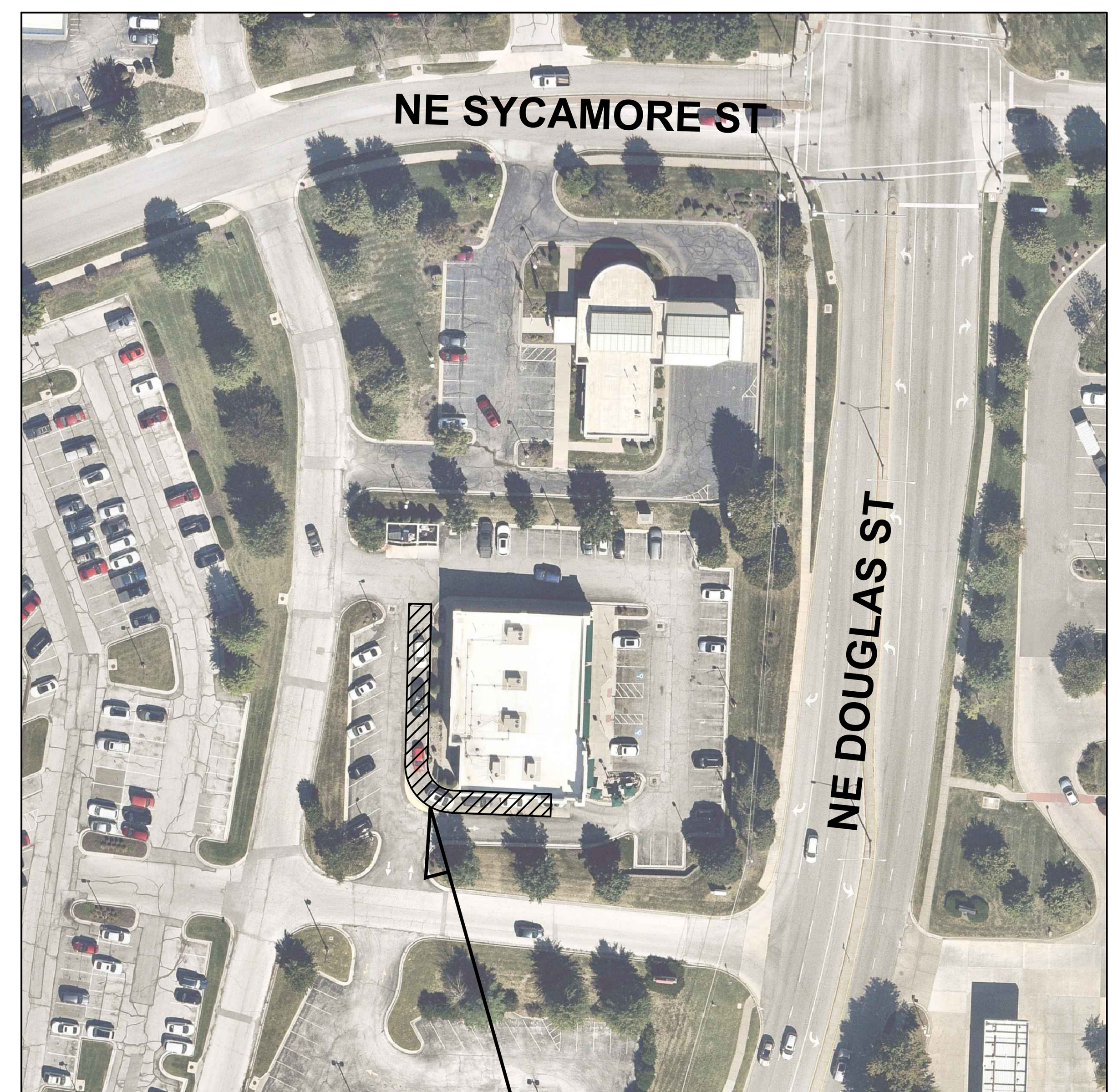
TELEPHONE: (614) 582-6106
CONTACT: MICHELLE EGAN

DRAWING INDEX



VICINITY
N.T.S.

SITE

NORTH

NOTES:

1. CONTRACTOR SHALL CONFIRM THAT THE EXISTING CONDITIONS FOR THE SITE MATCH WHAT IS SHOWN ON THE DRAWINGS INCLUDED PRIOR TO CONSTRUCTION.
2. IF REPRODUCED, THE SCALES SHOWN ON THESE PLANS ARE BASED ON A 34 x 22 INCH SHEET.
3. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICES COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.
4. ALL GENERAL CONTRACTOR WORK TO BE COMPLETED (EARTHWORK, FINAL UTILITIES, AND FINAL GRADING) BY THE MILESTONE DATE IN PROJECT DOCUMENTS.

CONSTRUCTION NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL (IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES) ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC. SUCH THAT THE IMPROVEMENTS ON THE PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE PROJECT DOCUMENTS.
2. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL. CONTRACTOR SHALL PROVIDE COPIES OF THE PERMIT AND RECEIPTS OF DISPOSAL OF MATERIALS TO THE OWNER AND OWNERS REPRESENTATIVE.
3. THE CONTRACTOR SHALL MAINTAIN ALL UTILITY SERVICES TO THE BUILDING AND ADJACENT PROPERTIES AT ALL TIMES. UTILITY SERVICES SHALL NOT BE INTERRUPTED WITHOUT APPROVAL FROM THE CONSTRUCTION MANAGER AND COORDINATION WITH THE ADJACENT PROPERTIES AND/OR THE CITY.
4. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
5. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR LOCATIONS OF EXISTING UTILITIES WITHIN ALL AREAS OF PROPOSED WORK.
6. ALL EXISTING SEWERS, PIPING AND UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS ANY OBSTACLES THAT MAY OCCUR ON THE SITE. VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PRECEDING WITH THE WORK.
7. ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC, AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE. CONTRACTOR SHALL PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN ANY ROAD RIGHT-OF-WAY DURING CONSTRUCTION.
8. CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, ETC. (AND OTHER APPROPRIATE BEST MANAGEMENT PRACTICES) AS APPROVED BY THE CONSTRUCTION MANAGER. MAINTENANCE OF TRAFFIC CONTROL SHALL BE COORDINATED IN ACCORDANCE WITH LEES SUMMIT, JACKSON COUNTY AND MISSOURI/DOT.
9. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES DURING CONSTRUCTION, AND SHALL NOTIFY ALL PROPERTIES IF ACCESS WILL BE INTERRUPTED OR ALTERED AT ANY TIME DURING CONSTRUCTION.
10. CONTRACTOR SHALL LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE CONSTRUCTION PLANS BUT IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR.
11. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY/COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
12. ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
13. SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM AN AERIAL

    KIMLEY-HORN ASSUMES NO LIABILITY FOR ANY ERRORS, INACCURACIES, OR OMISSIONS CONTAINED THEREIN.
14. ALL DIMENSIONS ARE ROUNDED TO THE NEAREST TENTH FOOT.
15. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY SPECIFICATIONS AND BUILDING PERMIT REQUIREMENTS.
16. CONTRACTOR TO CALL MISSOURI 811 UTILITY LOCATE AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION/CONSTRUCTION FOR UTILITY LOCATIONS.
17. CONTRACTOR TO FIELD VERIFY THE LOCATIONS AND ELEVATIONS OR EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO THE START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES OR VARIATIONS.
18. SUBGRADE EXCAVATION SHALL BE BACKFILLED IMMEDIATELY AFTER EXCAVATION TO HELP OFFSET ANY STABILITY PROBLEMS DUE TO WATER SEEPAGE OR STEEP SLOPES. WHEN PLACING NEW SURFACE MATERIAL ADJACENT TO EXISTING PAVEMENT, THE EXCAVATION SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING OF EXISTING PAVEMENT.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL CONTROL.
20. ALL EXCESS MATERIAL, BITUMINOUS SURFACING, CONCRETE ITEMS, ANY ABANDONED UTILITY ITEMS, AND OTHER UNSTABLE MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE CONSTRUCTION SITE.
21. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF PAVEMENTS AND CURB AND GUTTER WITH SMOOTH UNIFORM SLOPES TO PROVIDE POSITIVE DRAINAGE.
22. INSTALL A MINIMUM OF 4" AGGREGATE BASE UNDER CURB AND GUTTER AND CONCRETE SIDEWALKS.
23. UPON COMPLETION OF EXCAVATION AND FILLING, CONTRACTOR SHALL RESTORE ALL STREETS AND DISTURBED AREAS ON SITE. ALL DISTURBED AREAS SHALL BE RE-VEGETATED WITH A MINIMUM OF 4" OF TOPSOIL.
24. GRADING FOR ALL SIDEWALKS AND ACCESSIBLE ROUTES INCLUDING CROSSING DRIVEWAYS SHALL CONFORM TO CURRENT ADA STATE/NATIONAL STANDARDS. IN NO CASE SHALL ACCESSIBLE RAMP SLOPES EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPES EXCEED 2% . IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPES EXCEED 5%. IN NO CASE SHALL ACCESSIBLE PARKING STALLS OR AISLES EXCEED 2% (1.5% TARGET) IN ALL DIRECTIONS. SIDEWALK ACCESS TO EXTERNAL BUILDING DOORS AND GATES SHALL BE ADA COMPLIANT. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF ADA CRITERIA CANNOT BE MET IN ANY LOCATION PRIOR TO PAVING. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR A.D.A COMPLIANCE ISSUES.
25. MAINTAIN A MINIMUM OF 1.25% SLOPE IN BITUMINOUS PAVEMENT AREAS, 0.5% SLOPE IN CONCRETE PAVEMENT AREAS.
26. ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
27. LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
28. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
29. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
30. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES.
31. CONTRACTOR TO REMOVE AND REPLACE EXISTING SURFACES TO MATCH EXISTING OR BETTER IN AREAS OF DEMO AND INSTALLATION OF DRIVE-THRU EQUIPMENT.

811
Know what's below.
Call before you dig.

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2021 KIMLEY-HORN AND ASSOCIATES, INC.
767 NORTH EUSTIS STREET, SUITE 100, SAINT PAUL, MN 55114
PHONE: 651-645-4197 FIRM No. 001512 EXP. DECEMBER 31, 2021
WWW.KIMLEY-HORN.COM

KHA PROJECT	160924027
DATE	9/2/2021
SCALE	AS SHOWN
DESIGNED BY	MS
DRAWN BY	MS
CHECKED BY	TS

COVER SHEET

STORE 13654
1130 NE DOUGLAS ST
PREPARED FOR
STARBUCKS
LEES SUMMIT MISSOURI

SHEET NUMBER
C000

LEGEND

EXISTING CURB TO REMAIN

RED = EXISTING DRIVE-THRU EQUIPMENT
BLACK = PROPOSED DRIVE-THRU EQUIPMENT

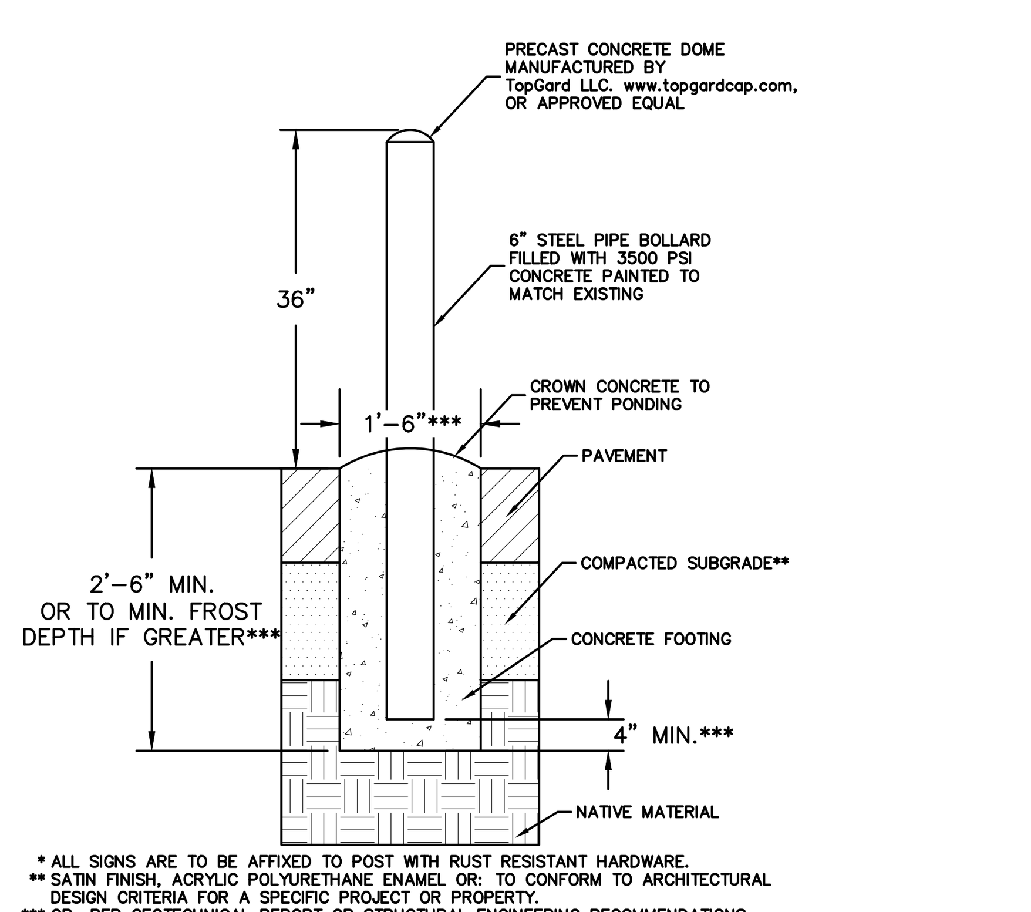
SCOPE OF WORK

- A REMOVE, SALVAGE, AND REINSTALL 5 PANEL MENU BOARD
- B REMOVE, SALVAGE, AND REINSTALL EXISTING ORDER POINT DRIVE THRU SPEAKER POST
- C REMOVE EXISTING STEEL PIPE BOLLARD
- D DISCONNECT AND ABANDON EXISTING DETECTOR LOOP IN PLACE
- E REINSTALL SALVAGED 5 PANEL MENU BOARD - SEE DETAIL 4, 24
- F REINSTALL SALVAGED ORDER POINT DRIVE THRU SPEAKER POST - SEE DETAIL 1
- G INSTALL NEW STEEL PIPE BOLLARD - SEE DETAIL THIS SHEET
- H INSTALL NEW DETECTOR LOOP - SEE DETAIL 27
- I EXISTING CLEARANCE BAR, TO REMAIN

GENERAL NOTES

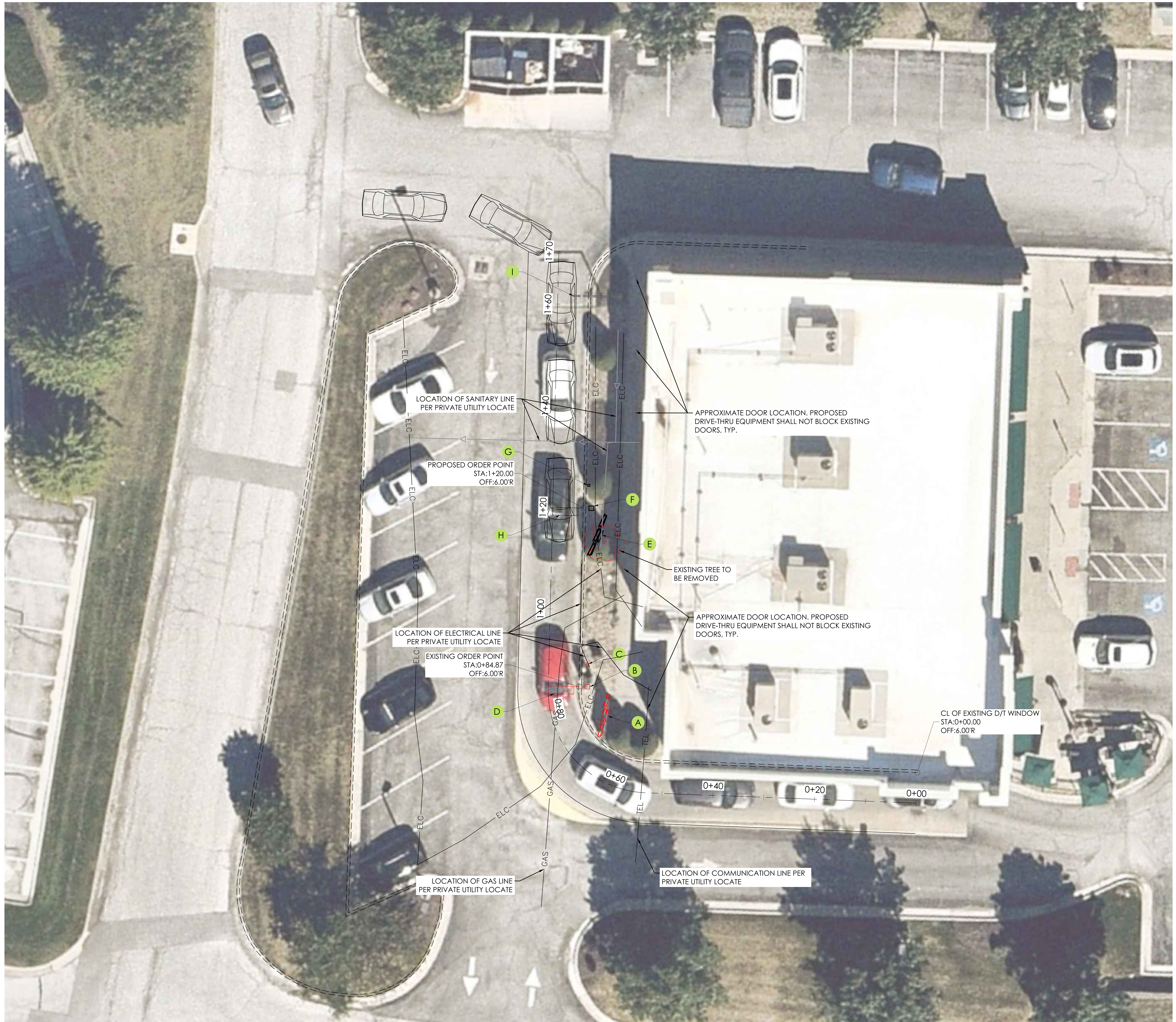
1. EXISTING MENU BOARD, ORDER POINT, AND PRE-MENU BOARD TO BE REUSED, UNLESS NOTED OTHERWISE
2. REFERENCE DRIVE-THRU STATIONING (OFFSET 6' FROM FACE OF CURB)
3. REFERENCE DETAIL 29 FOR LOW VOLTAGE WIRING DIAGRAM. FOR PLACEMENT OF NEW ELECTRIC OR COMMUNICATION LINES, CONTRACTOR TO REPLACE EXISTING SURFACES OF DISTURBED AREAS IN KIND.
4. FOUNDATIONS DESIGNED FOR MODERATE SOIL CONDITIONS, CONTACT KIMLEY-HORN IF FIELD CONDITIONS VARY.

PRIVATE UTILITY LOCATE NOT DEPLOYED FOR THIS SITE. CONTRACTOR TO FIELD LOCATE EXISTING UTILITIES AND POTENTIAL OBSTRUCTIONS

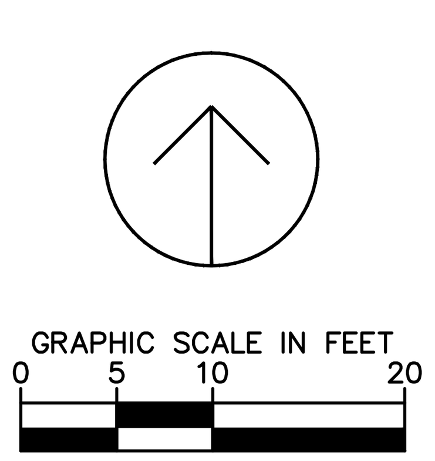


STEEL PIPE BOLLARD DETAIL

NTS



Know what's below. Call before you dig.



STORE 13654
1130 NE DOUGLAS ST
PREPARED FOR
STARBUCKS
LEES SUMMIT MISSOURI

DRIVE-THROUGH EQUIPMENT RELOCATION PLAN

KHA PROJECT	160924027
DATE	9/2/2021
SCALE	AS SHOWN
DESIGNED BY	MS
DRAWN BY	MS
CHECKED BY	TS

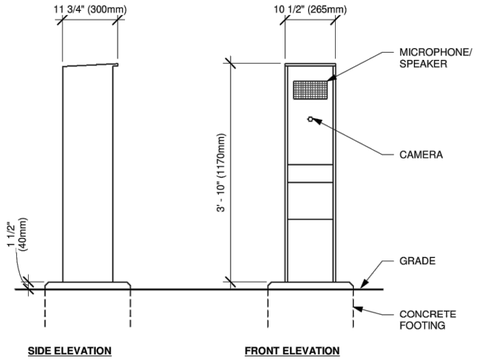
STATE OF MISSOURI STEVEN R. BOOKSEY NUMBER PE-2016040672 PROFESSIONAL ENGINEER 9/2/21

Kimley»Horn

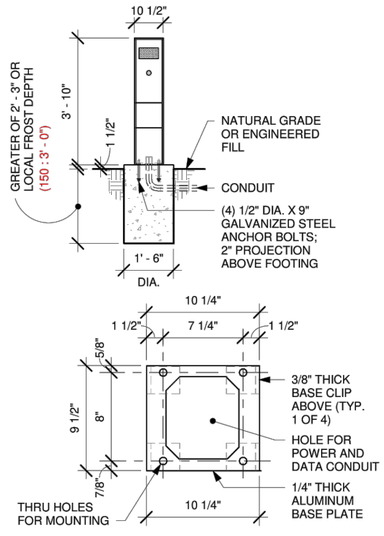
767 NORTH EUSTIS STREET, SUITE 100, SAINT PAUL, MN 55114
PHONE: 651-645-4197 FIRM No. 001512 EXP. DECEMBER 31, 2021
WWW.KIMLEY-HORN.COM

No.	REVISIONS	DATE	BY

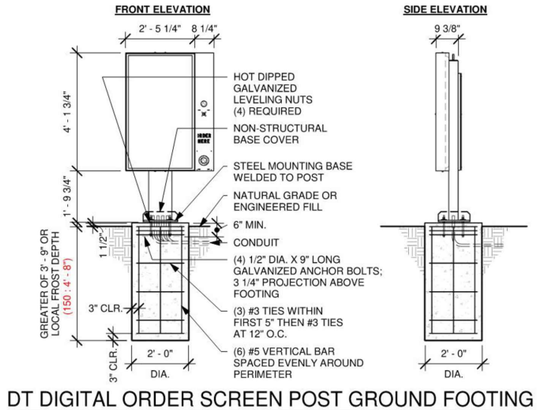
SHEET NUMBER
C100



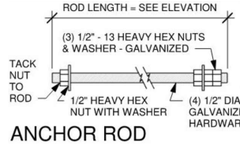
1 **DRIVE THRU SPEAKER POST**
N.T.S



BASE PLATE



DT DIGITAL ORDER SCREEN POST GROUND FOOTING

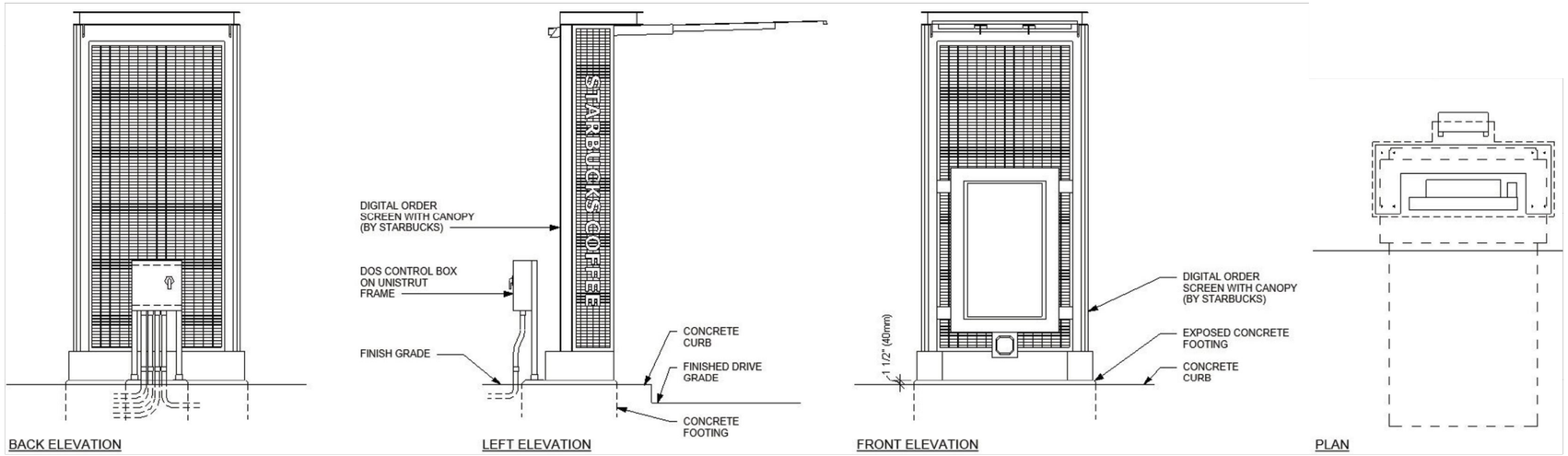


CENTER ANCHOR ROD PATTERN IN FOUNDATION

ALTERNATE ADHESIVE POST-INSTALLED ANCHORS:
HILTI 1/2" DIA. HVU ADHESIVE CAPSULES AT 4" EMBEDMENT WITH A36 HOT-DIPPED GALVANIZED THREADED STEEL RODS AND HARDWARE. (4) REQUIRED

ANCHOR ROD

2.1 **DRIVE THRU DIGITAL ORDER SCREEN**
1



*CONTRACTOR TO FIELD MODIFY THIS DETAIL FOR DIGITAL ORDER SCREEN WITHOUT CANOPY

2 **DIGITAL ORDER SCREEN AND CONTROL BOX W/CANOPY**
N.T.S

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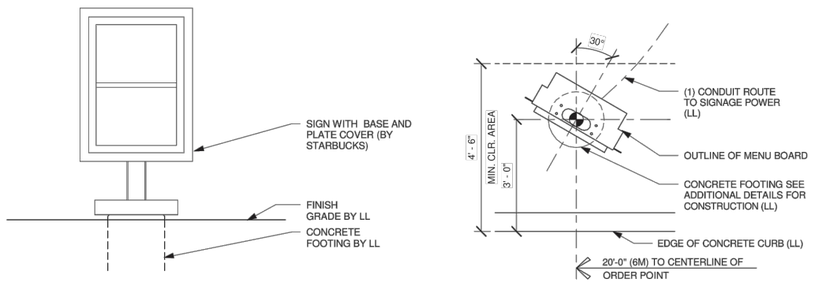
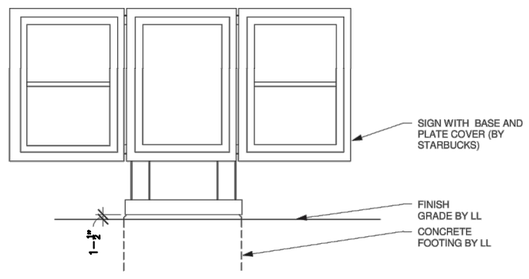
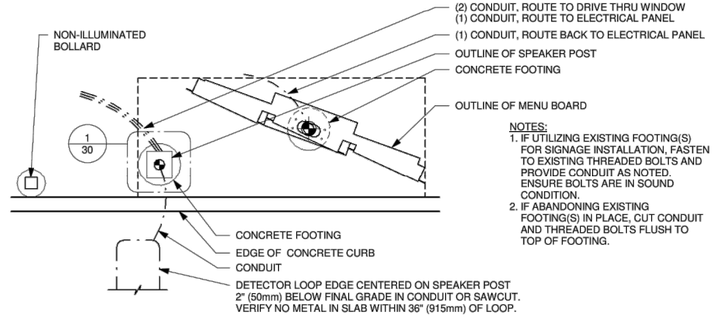
767 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114



3 DTE - PRE-MENU FREESTANDING N.T.S

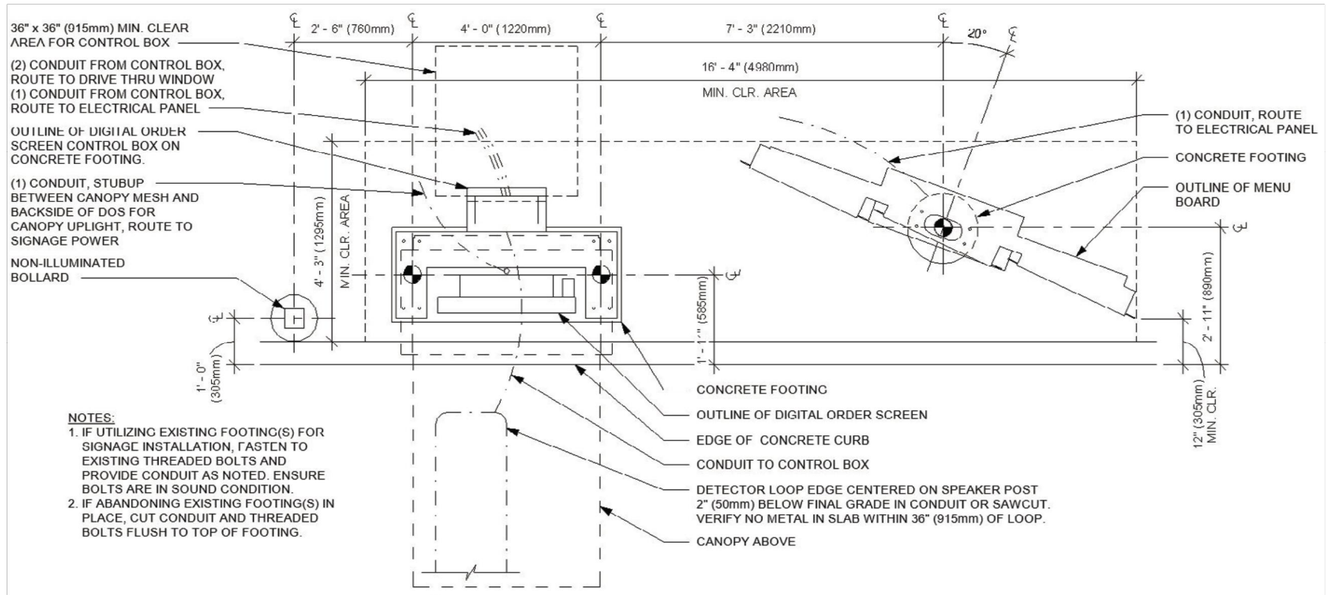


4 DTE - MENU 5 PANEL FREESTANDING N.T.S



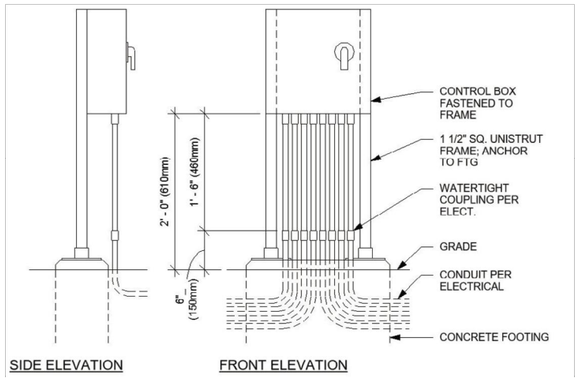
5 5 PANEL 20 DEG DT MENU BOARD W/ SPEAKER POST N.T.S

CONTRACTOR TO SEE DETAIL 6 FOR EQUIPMENT ORIENTATION

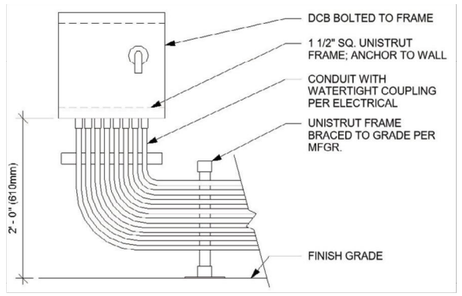


***6 5-PANEL MENU BOARD & DOS W/CANOPY** N.T.S

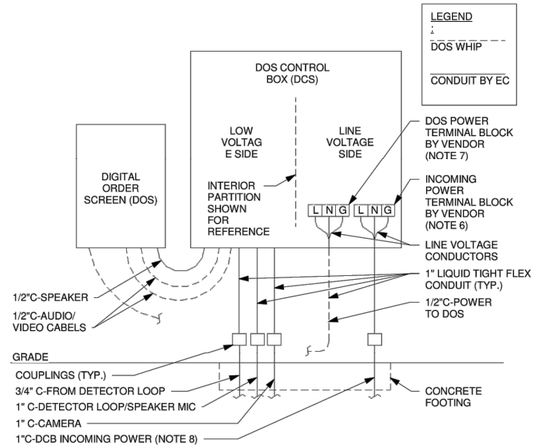
*CONTRACTOR TO FIELD MODIFY THIS DETAIL FOR DIGITAL ORDER SCREEN WITHOUT CANOPY



*7 DOS CONTROL BOX - FREESTANDING
N.T.S

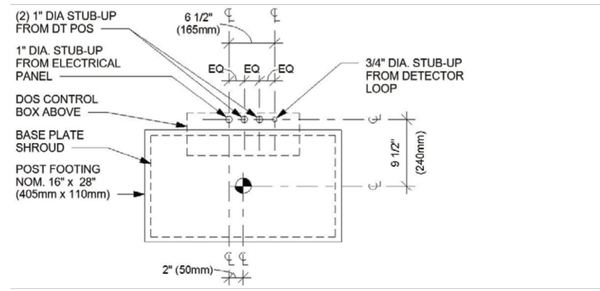


*8 DOS CONTROL BOX - WALL MOUNT
N.T.S



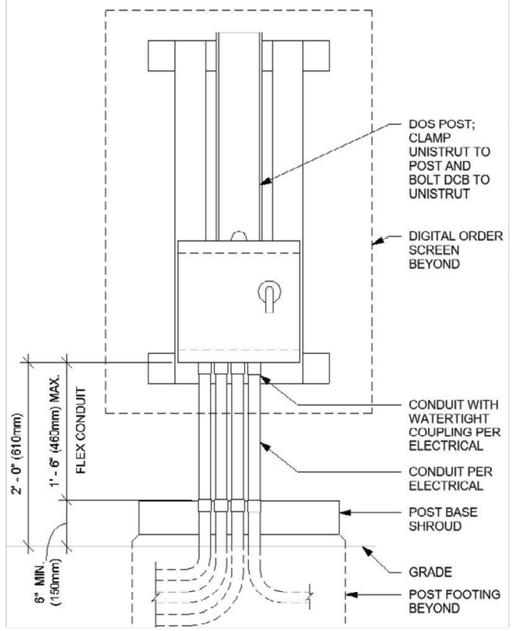
NOTES:
1. ALL SHOWN SHALL BE INSTALLED PER THIS DETAIL, CODE AND MANUFACTURER'S INSTRUCTIONS.
2. CONFIRM MOUNTING POSITIONS OF ALL DEVICES SHOWN WITH GC AND VENDOR.
3. EC TO PROVIDE, INSTALL AND CONNECT ALL LINE VOLTAGE CONDUCTORS.
4. EC TO CONNECT DEDICATED POWER BETWEEN DCS AND DCB.
5. LV VENDOR TO PULL DATA AND AUDIO CABLES TO DCB, INCLUDING DATA TERMINATIONS INSIDE DCB.
6. AUDIO VENDOR TO TERMINATE AUDIO CABLES INSIDE DCB.
7. EC TO CONNECT ALL LOW VOLTAGE CABLING, INCLUDING DOS WHIPS TO DCB.
8. TERMINATE INCOMING POWER ON TERMINAL BLOCKS LABELED INCOMING DEDICATED POWER.
9. TERMINATE POWER TO DOS ON TERMINAL BLOCKS LABELED DOS DEDICATED POWER.
10. POWER TO DCB SHALL BE INDIVIDUAL BRANCH CIRCUIT IN DEDICATED CONDUIT (I.E. NOT BE ON EMS OR LIGHTING CONTROL).

*9 DOS CONTROL BOX WIRING
N.T.S

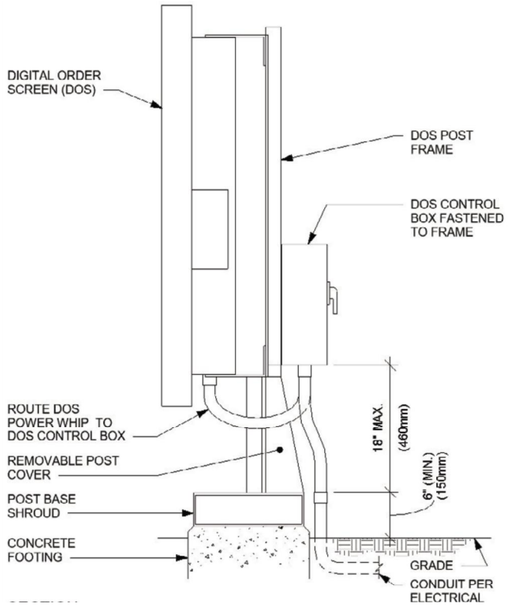


*10 DOS CONTROL BOX CONDUIT STUB-UPS AT POST
N.T.S

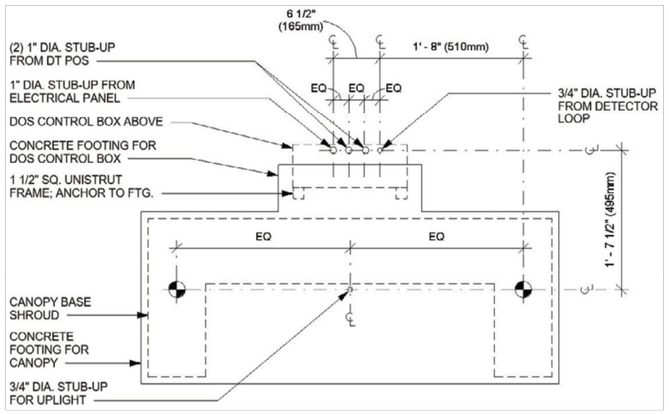
*CONTRACTOR TO FIELD MODIFY THIS DETAIL FOR DIGITAL ORDER SCREEN WITHOUT CANOPY



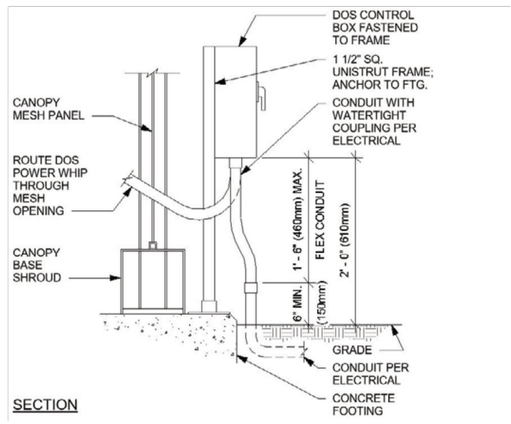
*11 DOS CONTROL BOX ON DOS POST
N.T.S



*12 DOS CONTROL BOX ON DOS POST - SECTION
N.T.S

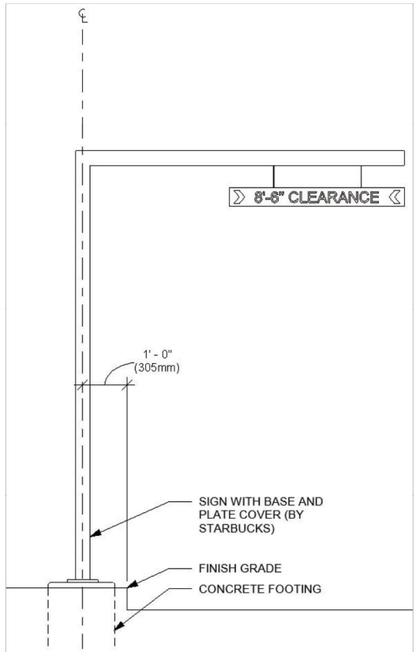


*13 DOS CONTROL BOX CONDUIT STUB-UPS AT CANOPY
N.T.S

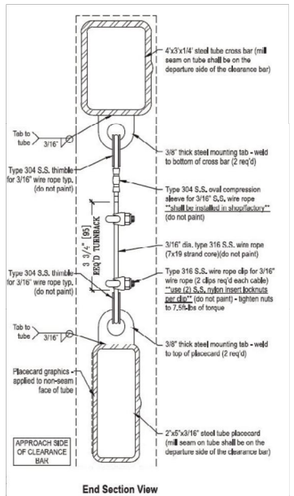


*14 DOS CONTROL BOX AT CANOPY - SECTION
N.T.S

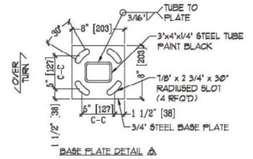
Kimley»Horn



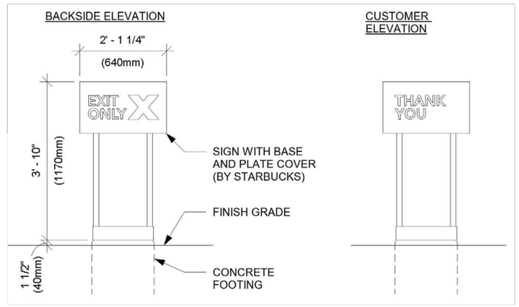
8'-6" Clearance Bar

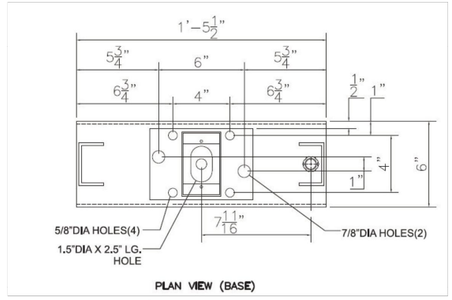


End Section View



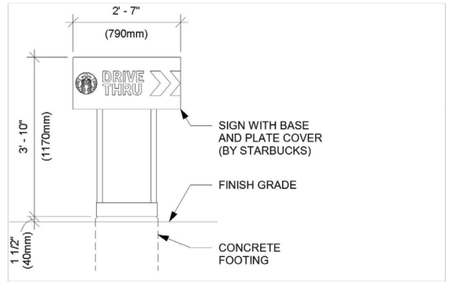
15 CLEARANCE BAR
N.T.S

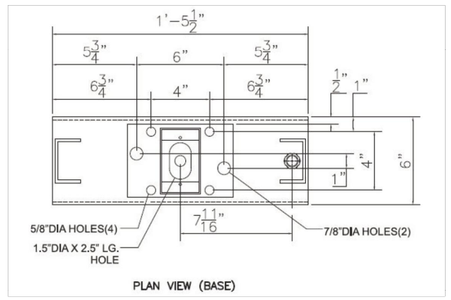




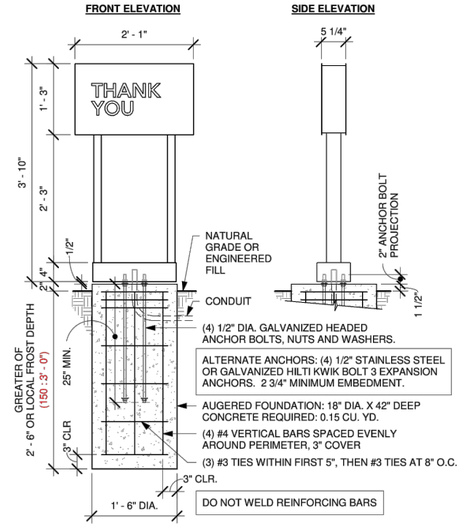
46" Thank You / Exit Only Sign, Illuminated

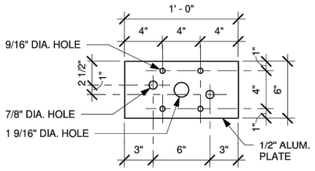
16 THANK YOU/EXIT ONLY SIGN, ILLUMINATED
N.T.S



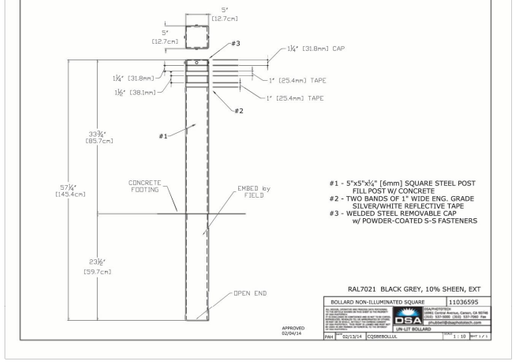


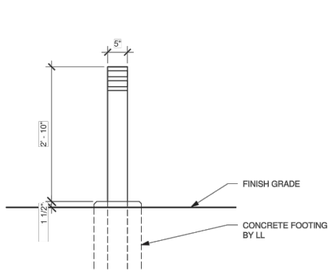
17 DIRECTIONAL ARROW W/LOGO, ILLUMINATED
N.T.S

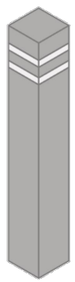




BASE PLATE

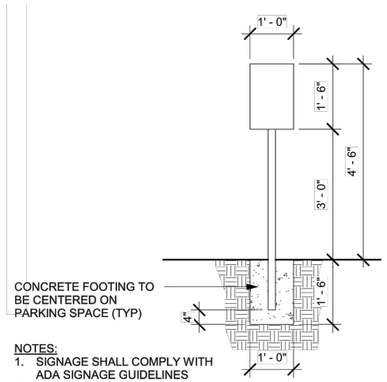






5"X5" BLACK STEEL POST
2 BANDS OF 1" WHITE REFLECTIVE TAPE.

18 DTE - NON-ILLUMINATED PROTECTIVE BOLLARD
N.T.S



19 SIGN FOOTINGS
N.T.S

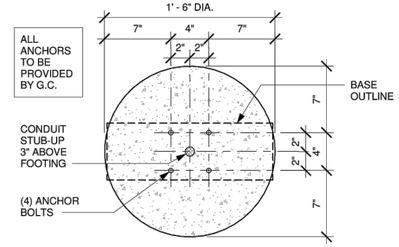
Mobile Order Parking Sign Elevation

Manufacture and install (1) parking sign.

1. Parking sign panel to be .080" aluminum
2. Face to have first surface-applied Reflective White (3M #28 vinyl graphics.
3. Sign panel will be fastened to Black U-Channel sign post w/ (5/16"x 2").
4. Sign post to be Black U-Channel (8'-0" tall, standard 2 1/4" Product #K-153-RRR-BLK.
5. Concrete footing will be 1'-0" x 1'-0" x 1'-6" deep.

Reflective White (3M #280-10)

20 MOBILE ORDER PARKING SIGN ELEVATION
20

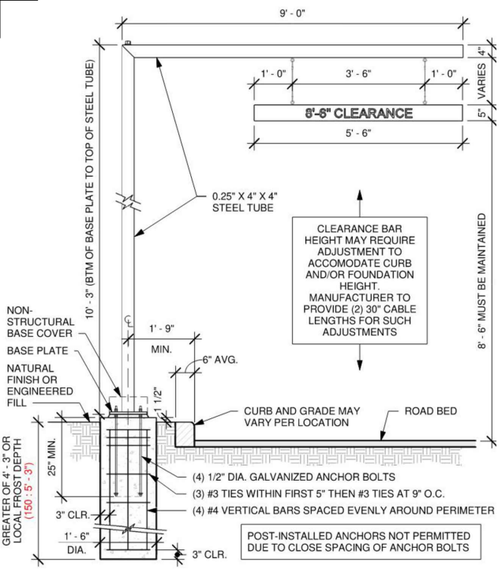


BOLT PATTERN (TOP VIEW)

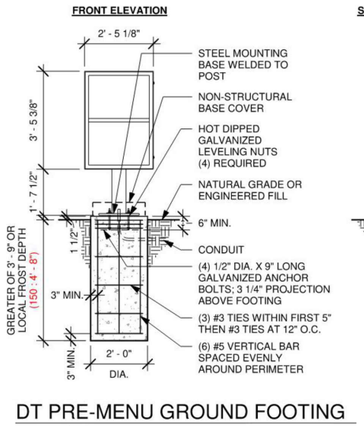
FOUNDATION AND ANCHORS		
QTY.	ANCHOR TYPE	ALTERNATIVE TYPE
4	1/2" STEEL STRAIGHT ANCHOR BOLTS WITH FLAT WASHERS AND HEAVY HEX NUTS (A36)	1/2" HILTI KWIK BOLT 3 EXPANSION ANCHORS, 2 3/4" MIN. EMBEDMENT
8	#3 BAR, STEEL REBAR TIES	
6	#4 BAR, VERTICAL STEEL REBAR	
CONCRETE		
0.15 CUBIC YARDS - AUGERED FOUNDATION: 18" DIA. X 42" DEEP		

21 DTE - DIRECTIONAL SIGN FOOTING
N.T.S

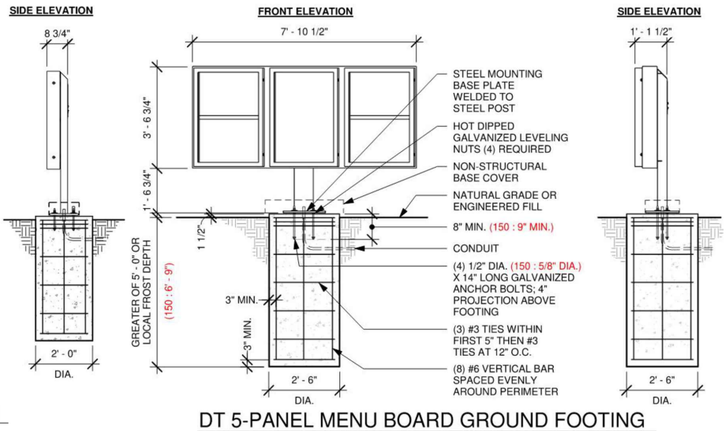
Kimley»Horn



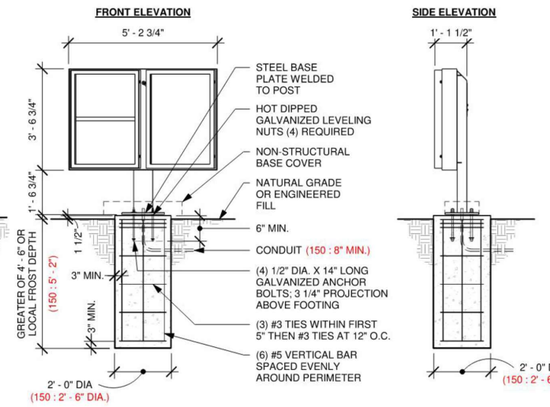
DT PRE-MENU GROUND FOOTING



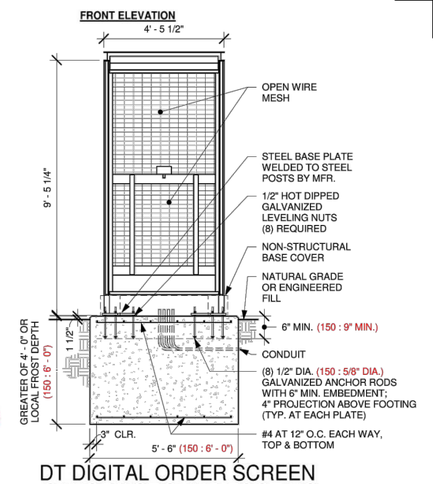
DT 5-PANEL MENU BOARD GROUND FOOTING

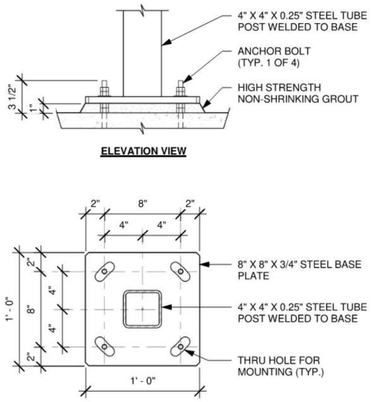


DT 3-PANEL MENU BOARD GROUND FOOTING



DT DIGITAL ORDER SCREEN CANOPY GROUND FOOTING





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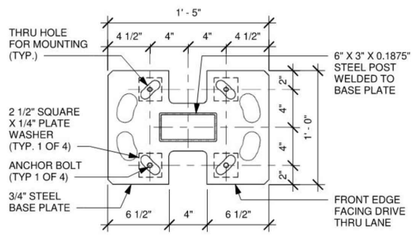
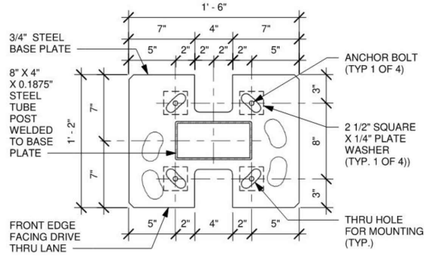
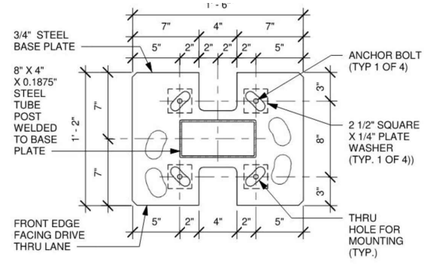


BASE PLATE



BASE PLATE



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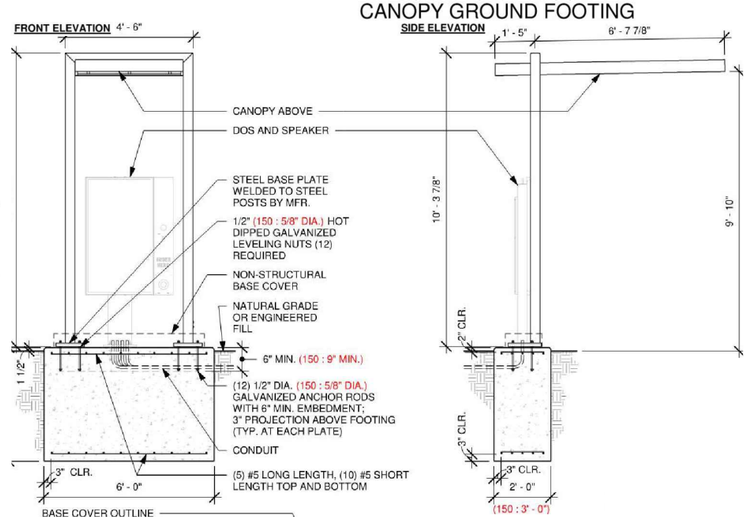
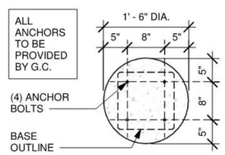
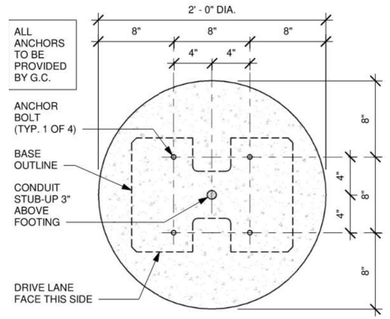
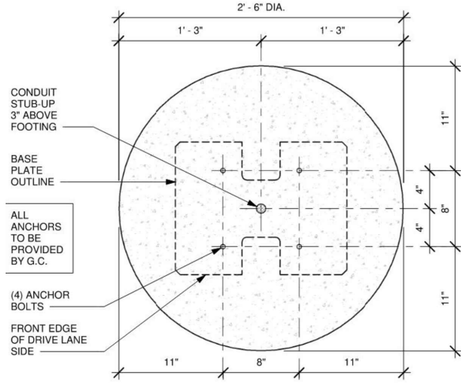




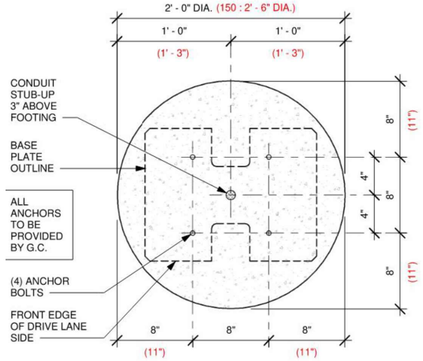
BOLT PATTERN (TOP VIEW)



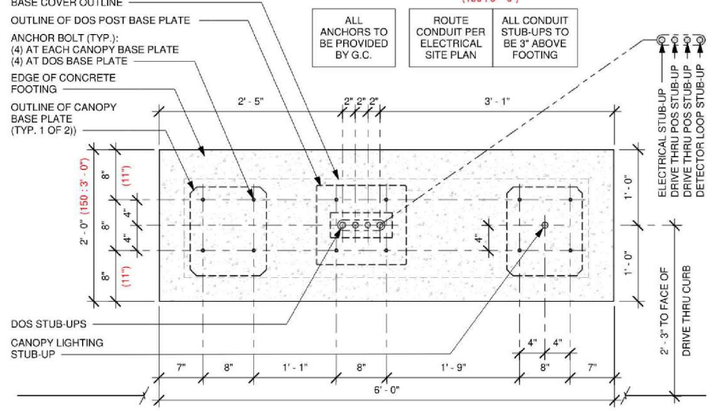
BOLT PATTERN (TOP VIEW)



BOLT PATTERN (TOP VIEW)



BOLT PATTERN (TOP VIEW)



BOLT PATTERN (TOP VIEW)

22 DTE - CLEARANCE BAR FOOTING N.T.S

23 DTE - PRE-MENU BOARD FOOTING N.T.S

24 DTE - MENU BOARD FOOTING N.T.S

24A DTE - MENU BOARD FOOTING N.T.S

25 DTE - DOS CANOPY FOOTING N.T.S

Kimley»Horn

HME

VDL100
Vehicle Detector Loop

INSTALLATION INSTRUCTIONS

The following instructions are for installation of the HME VDL100 Vehicle Detector Loop in a single drive-thru traffic lane, for vehicle detector use with any HME drive-thru communication system. The loop should be installed prior to pouring concrete for paving the lane, and therefore requires coordination with the paving contractor. Pay careful attention to the illustrations on the back of this page, especially regarding loop dimensions and the depth and position of its installation.

A loop must always be installed at the speaker post or menu board. If you received two loops, the second loop should typically be installed at the service window. If you received three loops, the third loop should typically be installed at the cashier window. Locations of the second and third loops may vary depending on specific requirements.

NOTE: In some cases the distance from the loop to where the conduit exits the ground into the speaker post cabinet may exceed three feet. In such cases, an additional ½ inch (12.7 mm) PVC pipe will be required (not provided).

LOOP AREA PREPARATION (Refer to Figure 1)

- The loop should begin 12 to 18 inches (305 – 457 mm) out from the curb.
- The forward edge of the loop should be lined up with the midpoint of the menu board, speaker post or drive-thru window.
- A 3 foot (914 mm) perimeter, free from rebar, wire screen, reinforcing bars, electrical cable or metal objects should be provided. Any metal nearby disturbs the loop's magnetic field, thus reducing the field in which detection takes place. Electrical cables near the loop can possibly cause false impulses to the magnetic field generated by the loop, causing erratic operation of the detector.

TOOLS/MATERIALS REQUIRED

Shovel; hacksaw; tape measure; wood supports; securing wire; PVC adhesive & brush

PARTS LIST

• Prefab (folded) loop, 1.5 feet (.46 meter) x 5 feet (1.52 meter)	1 ea
• Coupling for ½ inch (12.7 mm) PVC tubing	1 ea
• 90 degree elbow for ½ inch (12.7 mm) PVC tubing	1 ea
• ½ inch (12.7 mm) PVC tubing, 2 feet (.61 meter) long	1 ea
• ½ inch (12.7 mm) PVC tubing, 3 feet (.91 meter) long	1 ea

PROCEDURE

- Check the contents of this package against the parts list. If any item is missing, contact your HME sales representative.
- Remove the elbow coupling, Figure 2 (6), from the cable. The cable was threaded through the coupling for shipping only.
- Assemble the loop as instructed on the back of this page.
- Measure the distance from the curb to the outlet of the conduit that comes from the building into the speaker post or menu board to determine if the enclosed 3 foot (.91 meter) PVC loop extension reaches from the loop to the conduit as shown in Figure 2 (4). If it does, proceed to the next paragraph. If not, substitute a longer piece of ½ inch (12.7 mm) PVC pipe (not provided). Measure and cut the pipe to reach from the loop to the point where it must exit the ground into the speaker post.

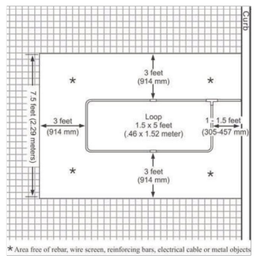


Figure 1. Loop area preparation

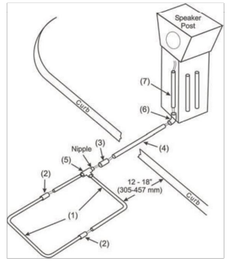


Figure 2. Loop layout and connections

NOTE: PVC adhesive (not provided) must be applied wherever PVC couplings and pipe are fitted together.

- Flatten the loop (folded for shipping) as shown in Figure 2 (1). Fit the pipe securely into the couplings (2). Lay the loop flat in the drive-thru lane and position it as shown in Figure 2. Elevate the loop on supports that are anchored to the ground, as shown in Figure 3. Level the loop so it will be 2 inches (51 mm) or less from the paved surface when the concrete is poured. Fasten the loop to the supports with wire, so it will not float when the concrete is poured.
- Pull the loop wires through the sleeve coupling (3) and the PVC loop extension (4). Slide one end of the sleeve coupling (3) over the nipple on the corner fitting of the loop (5), and slide the end of the loop extension (4) into the other end of the sleeve coupling (3).
- Pull the loop wires through the elbow coupling (6) and the remaining 2 foot (.61 meter) piece of PVC (7). Slide the two ends (of 4 & 7) into the coupling (6), positioning the piece of PVC (7) so it points upward, out of the ground. Be certain it is next to and parallel to the outlets of the conduit coming into the speaker post or menu board from the building.

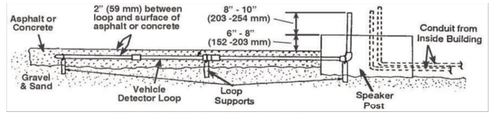


Figure 3. Side view of loop in asphalt or concrete

Waste Electrical and Electronic Equipment (WEEE)

The European Union (EU) WEEE Directive (2002/96/EC) places an obligation on producers (manufacturers, distributors and/or retailers) to take-back electronic products at the end of their useful life. The WEEE Directive covers most HME products being sold into the EU as of August 13, 2005. Manufacturers, distributors and retailers are obliged to finance the costs of recovery from municipal collection points, reuse, and recycling of specified percentages per the WEEE requirements.

Instructions for Disposal of WEEE by Users in the European Union

The symbol shown below is on the product or on its packaging which indicates that this product was put on the market after August 13, 2005 and must not be disposed of with other waste. Instead, it is the user's responsibility to dispose of the user's waste equipment by handing it over to a designated collection point for the recycling of WEEE. The separate collection and recycling of waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local authority, your household waste disposal service or the seller from whom you purchased the product.

HME

Saw-Cut Vehicle Detector Loop

INSTALLATION INSTRUCTIONS

These instructions are for saw-cut loop installation in an existing concrete or asphalt drive-thru traffic lane, for use with HME's Drive-Thru Audio or Timer Systems. Refer to the illustrations on the back of this page. Note the differences in loop location for audio systems and timer systems. **Failure to follow these instructions in saw-cut vehicle detector loop installation may cause your HME Drive-Thru Audio System or Timer System warranty to be voided.**

TOOLS/MATERIALS REQUIRED

- Drill with ¾ inch (19 mm) drill bit (optional)
- Type #20 AWG XLPE cable, 100 feet (30.5 meters)
- Concrete and mortar-repair sealant (Quikrete Hydraulic Water-Stop Cement or equivalent) ***CAUTION: Hard setting epoxies should never be used.***
- S/G foam tubing, 3 feet (.91 meter)
- Concrete-cutting saw
- Marking chalk

PROCEDURE

Carefully examine the illustrations on the back of this page before proceeding.

- Lay out and mark with chalk, the exact size and location of the slot before cutting it. The rectangular slot should begin 12 – 18 inches (305 – 457 mm) out from the curb, with its forward edge even with the midpoint of the menu board, speaker post (Location 1) or drive-thru window (Location 2). Its dimensions should be 5 feet (1.52 meters) across the drive-thru lane, and 18 inches (457 mm) wide. ***CAUTION: If the loop is being installed in an existing cut, or over an existing loop that is being deactivated, cut through the old loop in 5 or 6 places so it will not interfere with the new loop. Also, if there is a control joint in the concrete, the loop should not span it.***
- **BE AWARE:** A 3 foot (.91 meter) perimeter, free from rebar, wire screen, reinforcing bars, electrical cables or other metal objects should be provided around and under the loop area. Any metal within this perimeter disturbs the loop's magnetic field, thus reducing the field in which detection takes place.
- Cut the slot ¼ inch (6.25 mm) wide, and 1½ – 2¼ inches (38 – 52 mm) deep, along the chalk lines to form a basic rectangular loop. Make an additional 45° angle cut at each of the four corners of the rectangle, to prevent sharp, 90° angles of the concrete from damaging the loop-wire insulation. (If 45° angles are not cut, a ¾ inch [19 mm] hole must be drilled at each corner.) Also cut a lead-wire slot, ¼ inch (6.25 mm) wide and 1 inch (25 mm) deep, from one corner of the rectangular loop cut to a point nearest the conduit through which the cable is routed into the store.
- Clean the slot thoroughly with compressed air, and allow the slot and the area around it to dry completely. Be sure no moisture or sand gets back into the slot while the loop is being installed.
- Allowing sufficient lead wire to be routed from the speaker post or menu board into the store, to the audio system base station or timer control unit, lay the first turn of wire in the slot in a clockwise direction, routing it through the 45° angle cuts at each corner. ***CAUTION: A continuous piece of unspliced wire must be used. Avoid damaging the insulation on the wire. Nicks or abrasions can permit moisture to enter the loop, making it inoperable.***
- Gently press the wire down to the bottom of the slot, all the way around the loop, with a blunt wooden stick. Do not use a metal instrument or tool. Lay six turns of wire in the slot. After the last turn, lay 3 inch (76 mm) lengths of foam tubing, evenly spaced, on top of the wire to hold it in place in the slot.
- Fill the slot completely with sealant, covering the wire completely so it is not visible.
- Cut the remaining wire to equal the length of the lead wire, twist the two wire ends together to form a twisted pair, with five turns per foot. This twisted pair should go into the lead-wire cut.
- Before applying the sealant, test the loop for insulation resistance and DC continuity resistance. If the DC resistance is greater than 3 ohms, or the insulation resistance to ground is less than 100 megohms, the wire is damaged and the entire loop must be replaced.
- Apply the sealant.
- Solder and insulate all connections to lead wires.

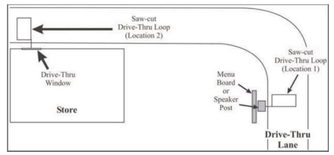


Figure 1. Saw-cut loop locations

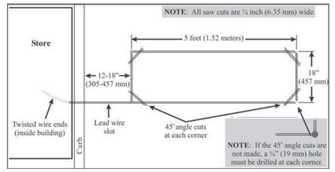


Figure 2. Saw-cut loop parameters

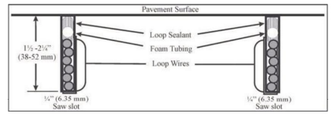


Figure 3. Saw-cut loop side view

Waste Electrical and Electronic Equipment (WEEE)

The European Union (EU) WEEE Directive (2002/96/EC) places an obligation on producers (manufacturers, distributors and/or retailers) to take-back electronic products at the end of their useful life. The WEEE Directive covers most HME products being sold into the EU as of August 13, 2005. Manufacturers, distributors and retailers are obliged to finance the costs of recovery from municipal collection points, reuse, and recycling of specified percentages per the WEEE requirements.

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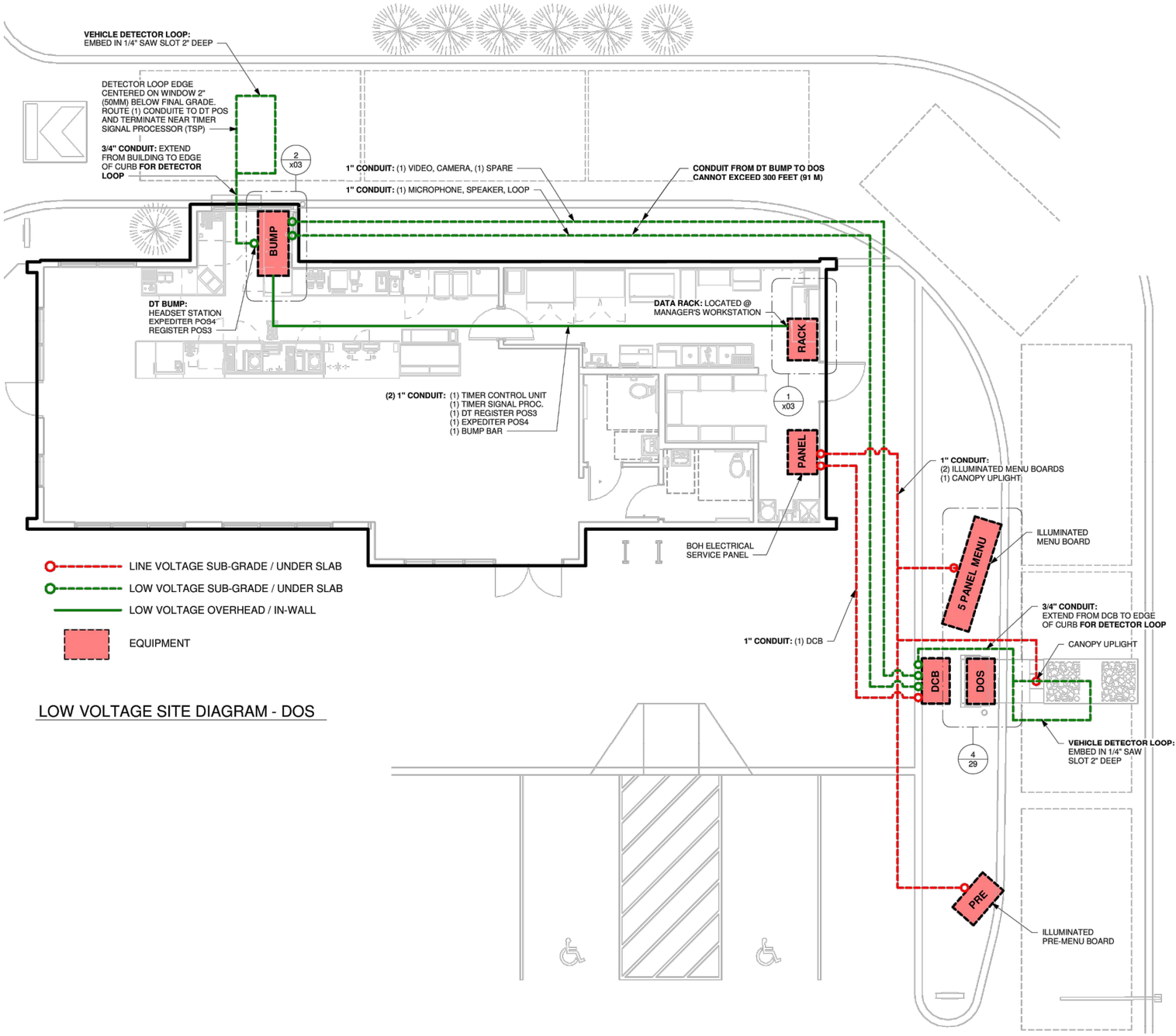
5 DETAILED SPECIFICATIONS

Kimley»Horn

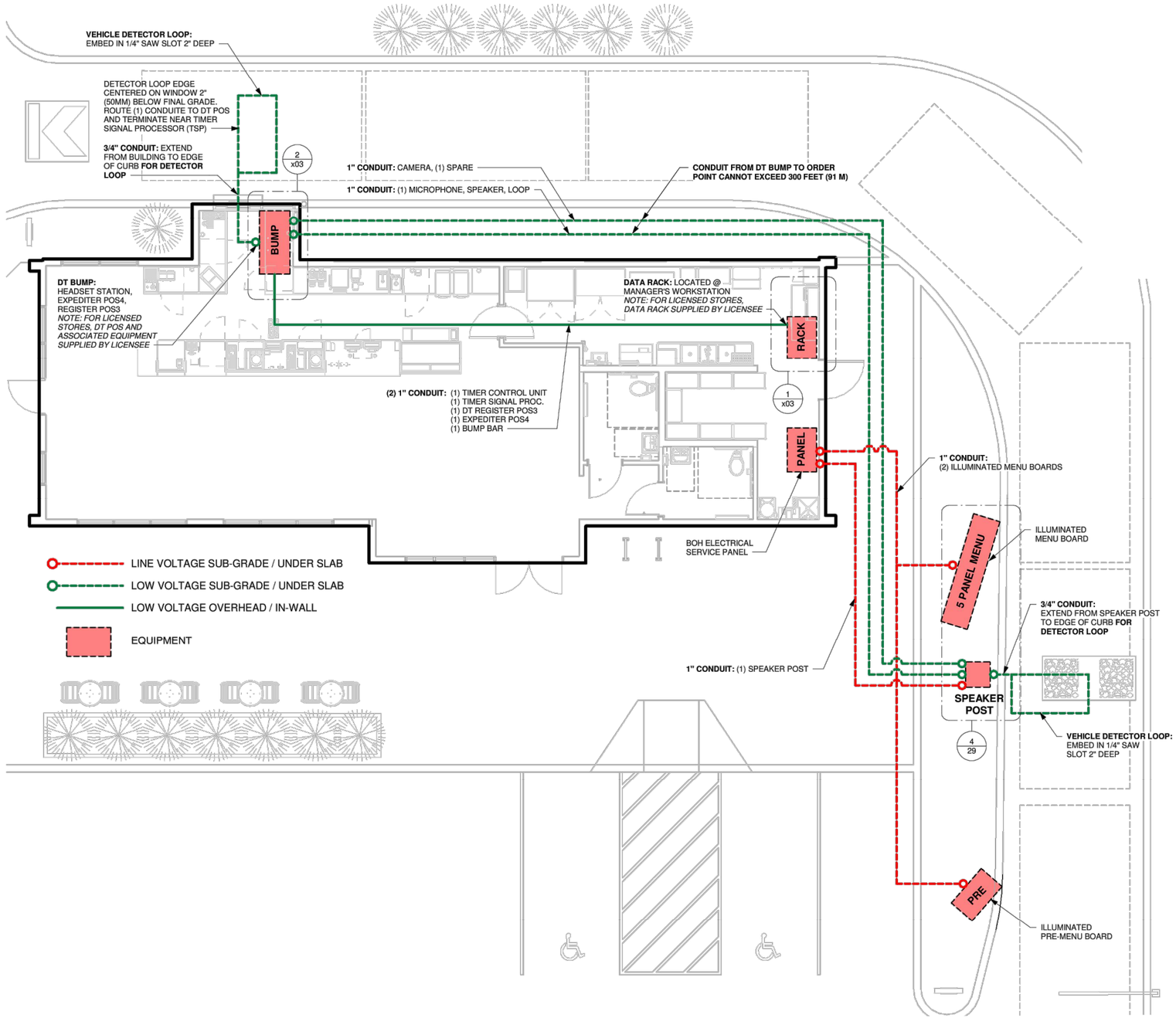


LOW VOLTAGE SITE DIAGRAM - DOS

28 LOW VOLTAGE SITE DIAGRAM - DOS
N.T.S

Kimley»Horn

767 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114



29 LOW VOLTAGE SITE DIAGRAM - SPEAKER POST
N.T.S