

IMPROVEMENT PLANS

TACO BELL

37500 FORD ROAD
WESTLAND, MI
JULY 30, 2018

WAYNE COUNTY DPS GENERAL NOTES

1. ALL WORK WITHIN THE WAYNE COUNTY ROAD RIGHT-OF-WAY (ROW) AND DRAIN EASEMENT SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND GENERAL SPECIFICATIONS, INCLUDING SOIL EROSION AND SEDIMENTATION CONTROL OF THE WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES, AND MDOT 2012 SPECIFICATIONS FOR CONSTRUCTION.
2. THESE PLANS ARE NOT VALID WITHOUT ATTACHMENT OF THE WAYNE COUNTY PERMIT SPECIFICATIONS FOR CONSTRUCTION WITHIN THE ROAD ROW, PARKS, DRAIN EASEMENT OR SANITARY SEWER UNDER JURISDICTION OF THE WAYNE COUNTY (07/01/93) REVISED 12/15/2004.
3. A WAYNE COUNTY PERMIT ENGINEER MUST OBSERVE CONSTRUCTION / INSTALLATION OF THE PROPOSED SITE STORM WATER MANAGEMENT SYSTEM COMPONENTS (MANUFACTURED TREATMENT SYSTEM, UNDERGROUND DETENTION SYSTEM, AND OUTLET CONTROL STRUCTURE). CONTRACTOR SHALL NOTIFY THE WAYNE COUNTY PERMIT OFFICE AT (734) 595-6504 EXT. 2009 AT LEAST 72 HOURS PRIOR TO START OF CONSTRUCTION.

STATE OF MICHIGAN SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF MICHIGAN, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE CONSTRUCTION OF A NEW TACO BELL RESTAURANT LOCATED AT 37500 FORD ROAD, WESTLAND, MICHIGAN, 48185.

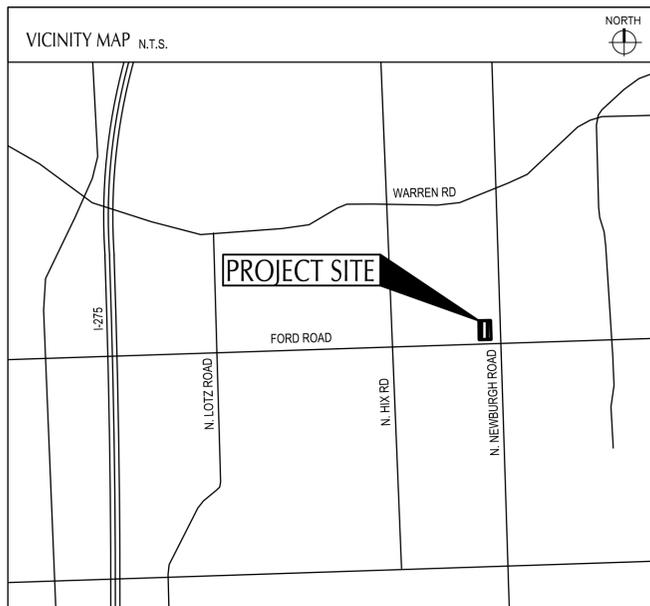
STATE OF MICHIGAN SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF MICHIGAN, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

OWNER AND DEVELOPER

TACO BELL OF AMERICA, LLC
1900 COLONEL SANDERS LANE LOUISVILLE, KY 40213

LANDLORD
MIKE KOZA
29200 NORTHWESTERN HIGHWAY, S 450
SOUTHFIELD, MI 48034



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APPROVALS

CITY ENGINEER

DATE : _____

SANITARY ENGINEER

DATE : _____

WATER DEPARTMENT

DATE : _____

STORMWATER MANAGEMENT

DATE : _____



ISSUED FOR BID	07/30/18
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CONTRACT DATE: XX.XX.XX
BUILDING TYPE: T40M-O
PLAN VERSION: JAN 18
SITE NUMBER: 312720/446548
STORE NUMBER: 2017088.72

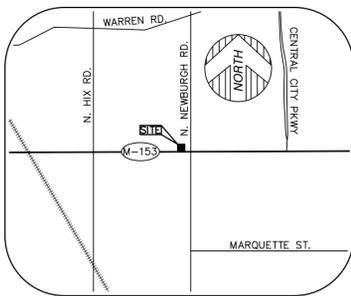
TACO BELL
20779 13 MILE RD.
WESTLAND, MI



MODERN EXPLORER
T40 - OPEN KITCHEN

TITLE SHEET

TS-001



VICINITY MAP
(NOT TO SCALE)

PARKING

NO PARKING MARKED ON SITE

PARCEL AREA

PARCEL 1 = 15,000± SQUARE FEET = 0.344± ACRES
 PARCEL 2 = 9,440± SQUARE FEET = 0.217± ACRES
 PARCEL 3 = 13,155± SQUARE FEET = 0.302± ACRES
 TOTAL = 37,595± SQUARE FEET = 0.863± ACRES

BASIS OF BEARING

NORTH 88°45'00" WEST, BEING THE SOUTH LINE OF THE SUBDIVISION AS PLATTED AND THE CENTER LINE OF FORD ROAD, AS DESCRIBED.

BENCHMARK

SITE BENCHMARK #1:
 ARROW ON HYDRANT, AT THE NORTHWEST CORNER OF FORD ROAD AND MORLEY ROAD.
 ELEVATION = 664.67' (NAVD88)

SITE BENCHMARK #2:
 SET MAG NAIL ON EAST SIDE OF UTILITY POLE, ON WEST SIDE OF MORLEY, 200 FEET NORTH OF FORD ROAD.
 ELEVATION = 666.18' (NAVD88)

SITE BENCHMARK #3:
 SET MAG NAIL ON NORTH SIDE OF GUY POLE, ON NORTH SIDE OF FORD ROAD, NEAR THE MIDDLE OF SITE.
 ELEVATION = 663.88' (NAVD88)

FLOOD NOTE

SUBJECT PARCEL LIES WITHIN:
 OTHER AREA (ZONE X); AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

AS SHOWN ON FLOOD INSURANCE RATE MAP: MAP NUMBER 26163C0208E, CITY OF WESTLAND - PANEL NUMBER 260739 0208 E, DATED FEBRUARY 2, 2012, PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

ZONING REGULATIONS

CB-1- LOW INTENSITY COMMERCIAL BUSINESS DISTRICT

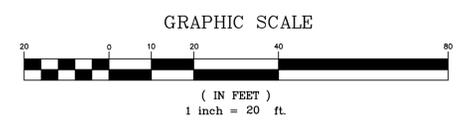
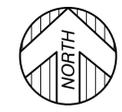
- *MINIMUM LOT AREA - 10,000 SQUARE FEET
- *MINIMUM LOT WIDTH - 80 FEET
- *MINIMUM USABLE OPEN SPACE IN PERCENTAGE OF LOT AREA - 40%
- *MINIMUM SETBACK REQUIREMENTS FOR PRINCIPAL AND ACCESSORY STRUCTURES
 FRONT - 15 FEET
 SIDE - 10 FEET
 REAR - 20 FEET
- *MAXIMUM BUILDING HEIGHT IN STORIES - 2 STORIES
- *MAXIMUM BUILDING HEIGHT IN FEET - 30 FEET
- *MAXIMUM LOT COVERAGE - 40% FOR ALL PRINCIPAL AND ACCESSORY BUILDINGS

NOTE: ALL ZONING INFORMATION IS TAKEN FROM THE CITY OF WESTLAND WEBSITE. ALL ZONING INFORMATION MUST BE VERIFIED FOR COMPLETENESS WITH CURRENT ZONING REGULATIONS.

LEGEND

- SET 1/2" REBAR WITH CAP P.S. 32341
- FOUND MONUMENT (AS NOTED)
- (R&M) FOUND SECTION CORNER (AS NOTED)
- (R) RECORD AND MEASURED DIMENSION
- (M) MEASURED DIMENSION
- GROUND POINT
- ⊠ ELECTRIC RISER
- ⊠ TRANSFORMER
- UTILITY POLE
- SANITARY MANHOLE
- SQUARE CATCH BASIN
- STORM DRAIN MANHOLE
- FIRE HYDRANT
- WATER VALVE
- LIGHTPOST/LAMP POST
- SINGLE POST SIGN
- DECIDUOUS TREE
- CONIFEROUS TREE
- PARCEL BOUNDARY LINE
- PLATTED LOT LINE
- SECTION LINE
- - - EASEMENT (AS NOTED)
- - - RIGHT-OF-WAY
- ▭ BUILDING
- ▭ BUILDING HATCH
- CONCRETE CURB
- EDGE OF CONCRETE (CONC.)
- EDGE OF ASPHALT (ASPH.)
- EDGE OF GRAVEL
- × FENCE (AS NOTED)
- WALL (AS NOTED)
- OVERHEAD UTILITY LINE
- SANITARY LINE
- STORM LINE
- WATER LINE
- GAS LINE
- CONTOUR MAJOR
- CONTOUR MINOR
- PAVEMENT MARKINGS

ALTA/NSPS LAND TITLE SURVEY



GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

PROPERTY DESCRIPTION

LAND SITUATED IN THE STATE OF MICHIGAN, COUNTY OF WAYNE, CITY OF WESTLAND IS DESCRIBED AS FOLLOWS:

PARCEL 1:
 THE NORTH 75 FEET OF LOTS 21 AND 22, WARREN JUNCTION SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 43, PAGE 94 OF PLATS, WAYNE COUNTY RECORDS.

TAX NUMBER: 56-028-01-0021-001

PARCEL 2:
 THE NORTH 113 FEET OF THE SOUTH 140 FEET OF LOT 21, EXCEPT THE WEST 20 FEET OF THE NORTH 93 FEET OF THE SOUTH 120 FEET THEREOF, WARREN JUNCTION SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 43, PAGE 94 OF PLATS, WAYNE COUNTY RECORDS.

TAX NUMBER: 56-028-01-0021-004

PARCEL 3:
 THE WEST 20 FEET OF THE SOUTH 120 FEET OF LOT 21, EXCEPT THE SOUTH 27 FEET THEREOF, ALSO THE SOUTH 140 FEET OF LOT 22, EXCEPT THE SOUTH 27 FEET THEREOF, WARREN JUNCTION SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 43, PAGE 94 OF PLATS, WAYNE COUNTY RECORDS.

TAX NUMBER: 56-028-01-0021-006

ALSO DESCRIBED AS:
 LOTS 21 AND 22, EXCEPT THE SOUTH 27 FEET THEREOF, WARREN JUNCTION SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 43, PAGE 94 OF PLATS, WAYNE COUNTY RECORDS.

TITLE REPORT NOTE

ONLY THOSE EXCEPTIONS CONTAINED WITHIN THE CHICAGO TITLE OF MICHIGAN, CHICAGO TITLE INSURANCE COMPANY COMMITMENT NO. 821038693N1S, DATED SEPTEMBER 5, 2017, AND LISTED BELOW WERE CONSIDERED FOR THIS SURVEY. NO OTHER RECORDS RESEARCH WAS PERFORMED BY THE CERTIFYING SURVEYOR.

3. EASEMENT (FOR WATER AND SEWER MAIN PURPOSES) VESTED IN THE TOWNSHIP OF NANKIN RECORDED IN LIBER 15672, PAGE 223. (AS SHOWN)
4. EASEMENT (FOR WATER AND SEWER MAIN PURPOSES) VESTED IN THE TOWNSHIP OF NANKIN RECORDED IN LIBER 15672, PAGE 224. (AS SHOWN)
5. 6 FOOT EASEMENT OVER SUBJECT PROPERTY AS SHOWN ON THE RECORDED PLAT, AS RECORDED IN LIBER 43 OF PLATS, PAGE 94. (AS SHOWN)

SURVEYOR'S NOTES

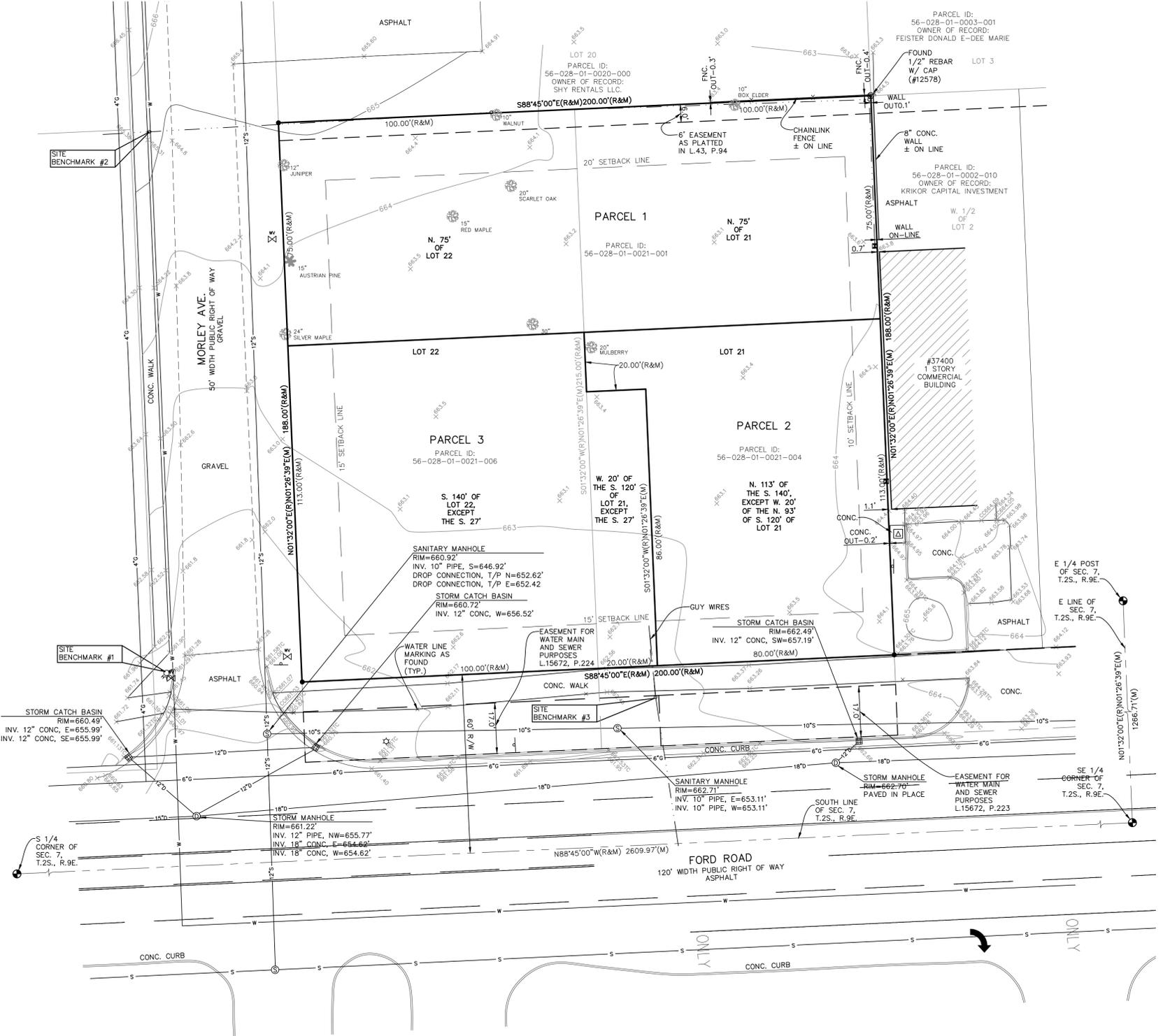
1. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES OTHER THAN THE STRUCTURE INVENTORY SHOWN HEREON.
2. THERE ARE NO DELINEATED WETLANDS ON SITE AT TIME OF SURVEY.

SURVEYOR'S CERTIFICATION

TO TACO BELL OF AMERICA, LLC, A DELAWARE LIMITED LIABILITY COMPANY, CHICAGO TITLE OF MICHIGAN, INC., CHICAGO TITLE INSURANCE COMPANY AND GPD GROUP:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDED ITEMS 1, 2, 3, 4, 5, 6A, 6B, 7A, 7B1, 8, 9, 10A, 10B, 11, 13, 18, 19, AND 20 OF TABLE A, THEREOF. THE FIELD WORK WAS COMPLETED ON DECEMBER 1, 2017.

DATE OF PLAT OR MAP: (12/07/17)



KEM-TEC & ASSOCIATES
 PROFESSIONAL SURVEYORS - PROFESSIONAL ENGINEERS
 22556 GRATIOT AVE * EASTPOINTE, MICHIGAN 48021
 (586)772-2222 * (800)295-7222 * FAX (586)772-4048



PARCEL ADDRESS: 37500 FORD RD, WESTLAND, MI
 PARCEL AREA: 37595± S.F.
 ENTITY NUMBER: 446548
 SITE NUMBER: 312720

SCALE: 1"=20' DRAWN BY: DB SHEET: 1 OF 1
 DATE: 12/8/17 CHECKED BY: DD GPD JOB NO.:

THOMAS G. SMITH, P.S.
 PROFESSIONAL SURVEYOR
 MICHIGAN LICENSE NO. 32341

WAYNE COUNTY GENERAL NOTES

- A. ALL WORK WITHIN WAYNE COUNTY ROAD RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND GENERAL SPECIFICATIONS, INCLUDING SOIL EROSION AND SEDIMENTATION CONTROL OF WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES, AND MDOT 2012 SPECIFICATIONS FOR CONSTRUCTION.
- B. THESE PLANS ARE NOT VALID WITHOUT ATTACHMENT OF THE WAYNE COUNTY PERMIT SPECIFICATIONS FOR CONSTRUCTION WITHIN ROAD RIGHT-OF-WAY, PARKS, DRAIN EASEMENTS OR SANITARY SEWER EASEMENTS UNDER THE JURISDICTION OF WAYNE COUNTY (07/01/93) REVISED 12/15/2004.
- C. RESTORE ALL DISTURBED AREAS WITHIN THE COUNTY ROAD RIGHT-OF-WAY WITH EITHER SEED MIX THM AND MULCH OVER 3" TOPSOIL OR SOD OVER 2" TOPSOIL.
- D. TRAFFIC SHALL BE MAINTAINED IN BOTH DIRECTIONS AT ALL TIMES, SIGNING, BARRICADES, ETC. SHALL BE IN CONFORMANCE WITH MICHIGAN'S MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- E. CONTRACTOR SHALL NOTIFY WAYNE COUNTY THREE (3) BUSINESS DAYS (MINIMUM) PRIOR TO START OF CONSTRUCTION, CONTACT WAYNE COUNTY PERMIT OFFICE AT (734) 595-6504 EXTENSION 2009.
- F. CONTRACTOR SHALL CONTACT MISS DIG AT 811 TO IDENTIFY AND FLAG / MARK THE LOCATIONS OF ALL UNDERGROUND UTILITIES AT THE PROPOSED CONSTRUCTION AREAS PRIOR TO START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATIONS AND ELEVATIONS OF ALL UNDERGROUND UTILITIES, AND RESOLVE ANY CONFLICT BETWEEN THE PROPOSED WORK AND THE EXISTING UNDERGROUND OR ABOVE GROUND UTILITIES.
- G. ALL SURVEY MONUMENTS / CORNERS AND BENCH MARKS LOCATED WITHIN THE CONSTRUCTION AREA MUST BE PRESERVED IN ACCORDANCE WITH PUBLIC ACT 74 AS AMENDED (INCLUDING ACT 34, P.A. 2000) AND AS PER WAYNE COUNTY PERMIT RULE 1.8. THE PERMIT HOLDER AND CONTRACTOR SHALL COORDINATE THE WORK WITH A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF MICHIGAN DURING CONSTRUCTION ACTIVITIES FOR THE PURPOSE OF WITNESSING, PRESERVING OR REPLACING SURVEY MONUMENTS AND MONUMENT BOXES.
- H. BACKFILL THE TRENCH PER SEWER TRENCH "A" OR "B" IN THE WAYNE COUNTY DETAIL S-12 OR AS DIRECTED BY THE COUNTY ENGINEER.
- I. ALL ROADS, TREES, AND DRIVEWAYS TO BE BORED PER WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICE REQUIREMENTS.
- J. TUNNELING, BORING, AND JACKING OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE WAYNE COUNTY SPECIFICATIONS/ATTACHMENT AND/OR AS DIRECTED BY THE COUNTY ENGINEER.
- K. PLACE BORE PITS AT LEAST 10-FEET FROM THE EDGE OF PAVEMENT PER WAYNE COUNTY SPECIFICATIONS.
- L. CONSTRUCTION SHALL BE DONE BETWEEN 9:00A.M. AND 3:00P.M. IF YOU PLAN TO OBSTRUCT OR CLOSE ANY LANE ON A MAIN THROUGHFARE.
- M. RESTORE RIGHT-OF-WAY AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
- N. RESTORE/RECONSTRUCT THE DITCH PER WAYNE COUNTY DETAIL P-4 OR AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
- O. THE MINIMUM 36-INCH HORIZONTAL AND MINIMUM 18-INCH VERTICAL CLEARANCE ARE REQUIRED BETWEEN THE PROPOSED AND EXISTING UTILITIES AS PER THE WAYNE COUNTY STANDARDS. MUST BE MAINTAINED MINIMUM 6-FEET UNDER THE COUNTY DRAINS.
- P. THE DEPTH OF THE INSTALLATION SHALL BE A MINIMUM OF FOUR (4) FEET BELOW THE GROUND (FROM THE LOWEST ELEVATION ALONG THE CENTERLINE OF THE PROPOSED UTILITY) AND A MINIMUM OF SEVEN (7) FEET UNDER THE PAVEMENT MEASURED FROM THE LOWEST GUTTER LINE OR EDGE OF PAVEMENT ELEVATION PER THE COUNTY SPECIFICATIONS, ATTACHMENT, AND/OR AS DIRECTED BY THE COUNTY ENGINEER.
- Q. CONTRACTOR SHALL BE RESPONSIBLE FOR AVOIDING ANY CONFLICT BETWEEN THE PROPOSED UTILITIES AND THE EXISTING UTILITIES AND TO KEEP THE SUFFICIENT CLEARANCE BETWEEN THE UTILITIES AS REQUIRED BY THE SPECIFICATIONS/ORDINANCE/REGULATIONS AND THE LAWS. REVISED 7/1/2006.
- R. REPLACE SIDEWALK AS DIRECTED BY THE WAYNE COUNTY ENGINEERING AND/OR SPECIFICATIONS AND AS DIRECTED BY THE COUNTY ENGINEER. REPLACE ADA RAMPS PER MDOT STANDARDS R-28-4 REQUIREMENT AND AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
- S. ALL ABANDONED MAINS AND VAULTS WILL BE REMOVED.
- T. REPAIR DAMAGED UNDERDRAIN PER WAYNE COUNTY DETAIL S-14 AND AS DIRECTED BY THE COUNTY ENGINEER.
- U. IF CONCRETE CURB IS DISTURBED THE SAW-CUT FULL DEPTH TO REMOVE EXISTING CONCRETE CURB, AND ROAD PAVEMENT TO LIMITS AS DIRECTED BY THE COUNTY ENGINEER.
- V. ROADWAY PAVEMENT RECONSTRUCTION SHALL BE 1-1/2 INCH MINIMUM WAYNE COUNTY HMA TOP (F) OVER 10-INCH MINIMUM NON-REINFORCED CONCRETE PAVEMENT ON 9-INCH MINIMUM OF 21AA AGGREGATE BASE COMPACTED IN PLACE TO A MINIMUM OF 95% OF MAXIMUM UNIT WEIGHT AS DIRECTED BY THE COUNTY ENGINEER.
- W. THE NEW PAVEMENT TO EXISTING PAVEMENT WITH 18-LONG NO. 5 EPOXY COATED REBAR AT 18-INCH O.C. AS DIRECTED BY THE COUNTY ENGINEER.
- X. ALL UTILITIES, INCLUDING DRAINAGE FACILITIES, SHALL BE LOCATED PRIOR TO EXCAVATION IN THE COUNTY ROAD RIGHT-OF-WAY. SOME FACILITIES ARE NOT LOCATED THROUGH THE MISS DIG SYSTEM.
- Y. NO PARKING, STORAGE OF MATERIALS OR EQUIPMENT WILL BE ALLOWED WITHIN THE WAYNE COUNTY RIGHT-OF-WAY.
- Z. A SAFE AND ADEQUATE TRAVEL ROUTE FOR PEDESTRIANS SHALL BE MAINTAINED AT ALL TIMES. PEDESTRIANS SHALL NOT BE DETOURED IN THE EXISTING ROADWAY.
- AA. THE CONTRACTOR SHALL NOTIFY THE WAYNE COUNTY TRAFFIC SIGNAL SHOP AT (734) 955-3277 THREE (3) WORKING DAYS PRIOR TO STARTING ANY WORK (SIGNAL WORK, CONDUIT WORK, OR ANY EXCAVATION) WITHIN THE VICINITY OF ANY TRAFFIC SIGNAL FACILITIES.

PLAN REPRODUCTION WARNING
THE PLANS HAVE BEEN CREATED ON ANSI D (22"x34") SHEETS, REFER TO GRAPHIC SCALE.

1. All materials and workmanship shall be in accordance with Wayne County Specifications which are defined as the current Michigan Department of Transportation (MDOT) Standard Specifications for Construction as modified by Wayne County Special Provisions.
2. Paving Standard Plan Details may be shown with wire fabric reinforcement. Use of reinforcement shall be required as called for on the plans.
3. A Transverse End of Pour Joint, Symbol (H), shall be constructed when there is an interruption in concrete paving for more than 1/2 hour. Transverse End of Pour Joint, Symbol (H), shall be constructed in accordance with current MDOT Standard Plan, R-39 series (Reinforced Concrete Pavement) and R-39P series (Plain Concrete Pavement). This note applies to both concrete base and finished concrete pavement.
4. When it is anticipated that construction traffic will be using the pavement, endings will be protected by means of a temporary concrete header as shown on RS-4.
5. The Expansion Joint Foam Rod shall be a solid round heat resistant Polyurethane foam capable of withstanding the temperature of the sealant. Density of the foam shall be 2-4 Lb./Cft.
6. Wire Fabric Reinforcement shall lay flat when delivered to the work area. The use of spreader bars will be required for lifting bundles of reinforcement.
7. Where the lane width of the pavement differs from wire fabric reinforcement standards, special sheets of the required width may be used or standard sheets may be cut to the required size or split sheets may be added to standard sheets to obtain the required size. Side laps shall not be less than the spacing of the longitudinal wires.
8. The ends of the Wire Fabric Reinforcement sheets shall be fastened in at least two places at each lap to prevent horizontal and vertical displacement.
9. When Concrete Pavement Repairs are longer than 20 feet, Transverse Plane of Weakness Joints (WT) shall be placed in-line with existing transverse joints, working cracks, or at 15 feet maximum and 6 feet minimum spacings.
10. Existing concrete pavements with HMA surface requiring saw-cutting for removal shall have the saw cuts extend completely thru the concrete pavement. Sawed slabs-cut in adjacent slab, gutter or shoulder, which will remain in place, shall be sealed.

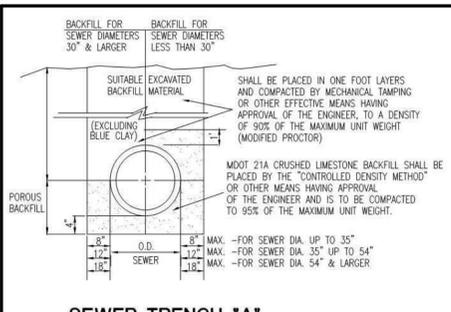
REVISION DATE: 08/01/07	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING:	PERMIT STANDARDS	RS-1
DESIGN PERMIT ENGINEER:	GENERAL NOTES	SHEET 1 OF 1

NOTE: THIS IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL SIGNED COPY FOR PUBLICATION IS KEPT ON FILE AT THE WAYNE COUNTY ENGINEERING OFFICE.

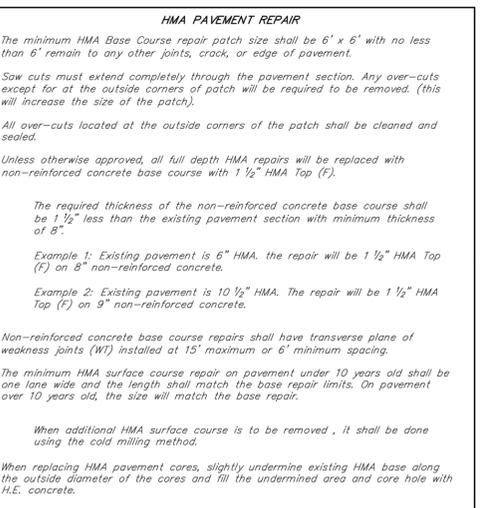
1. All materials and workmanship shall be in accordance with the Wayne County Specifications which are defined as the 2003 Michigan Department of Transportation (MDOT) Standard Specifications for Construction as modified by Wayne County Special Provisions.
2. The Contractor may construct manholes, catch basins and inlets, as detailed, with precast reinforced concrete units provided the following conditions are satisfied:
 - a. All precast sections shall be made in accordance with ASTM C-478 except that:
 - (1) The minimum wall thickness shall be 5 inches.
 - (2) The thickness of base and top slabs shall be as detailed on the Standard Plans.
 - b. The maximum diameter of sewer outlet in any precast unit shall be 18 inches, except for inlets which shall have a maximum outlet diameter of 12 inches.
 - c. No openings shall be made in precast units which would leave less than 24 inches of total undisturbed precast manhole wall or would remove more than 30% of the circumference along any horizontal plane. A minimum of 8 inches of undisturbed manhole is required between any two openings. Openings may be constructed by casting, removal of green concrete, or by drilling the openings in cured concrete.
 - d. Openings for sewer pipe shall be cut or precast with a diameter 3 inches larger than the outside diameter of the pipe. The opening around the outside of the pipe shall be closed using brick masonry.
 - e. Structures for sewers larger than 18 inches or those not meeting the opening requirements shall be built of brick or brick to a minimum of 8 inches above the top of sewer, with precast units being used above this point. Where the precast units rest on the block or brick, the groove in the precast unit will be filled with mortar.

REVISION DATE: 08/01/07	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING:	PERMIT STANDARDS	S-1
DESIGN PERMIT ENGINEER:	GENERAL NOTES	SHEET 1 OF 2

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SEWER TRENCH "A"
NOTE:
PVC PIPE:
MIN. TRENCH WIDTH = 1.5 X O.D.+12" (FOR ALL INSTALLATION DEPTHS)
HOPE PIPE:
PER MANUFACTURER'S RECOMMENDATIONS



HMA PAVEMENT REPAIR
The minimum HMA Base Course repair patch size shall be 6' x 6' with no less than 6' remain to any other joints, crack, or edge of pavement.
Saw cuts must extend completely through the pavement section. Any over-cuts except for at the outside corners of patch will be required to be removed. (this will increase the size of the patch).
All over-cuts located at the outside corners of the patch shall be cleaned and sealed.
Unless otherwise approved, all full depth HMA repairs will be replaced with non-reinforced concrete base course with 1 1/2" HMA Top (F).
The required thickness of the non-reinforced concrete base course shall be 1 1/2" less than the existing pavement section with minimum thickness of 8".
Example 1: Existing pavement is 6" HMA, the repair will be 1 1/2" HMA Top (F) on 8" non-reinforced concrete.
Example 2: Existing pavement is 10 1/2" HMA, the repair will be 1 1/2" HMA Top (F) on 9" non-reinforced concrete.
Non-reinforced concrete base course repairs shall have transverse plane of weakness joints (WT) installed at 15' maximum or 6' minimum spacing.
The minimum HMA surface course repair on pavement under 10 years old shall be one lane wide and the length shall match the base repair limits. On pavement over 10 years old, the size will match the base repair.
When additional HMA surface course is to be removed, it shall be done using the cold milling method.
When replacing HMA pavement cores, slightly undermine existing HMA base along the outside diameter of the cores and fill the undermined area and core hole with H.E. concrete.

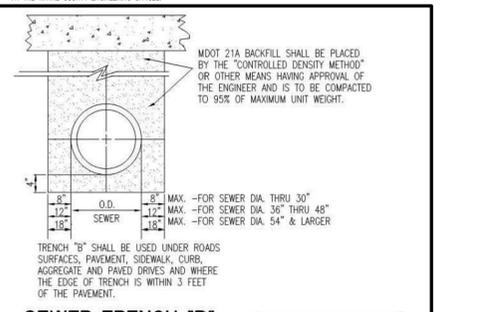
REVISION DATE:	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING:	PERMIT STANDARDS	PR-5
DESIGN PERMIT ENGINEER:	PAVEMENT REMOVAL AND REPAIR (PATCHING)	SHEET 1 OF 1

NOTE: THIS IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL SIGNED COPY FOR PUBLICATION IS KEPT ON FILE AT THE WAYNE COUNTY ENGINEERING OFFICE.

- f. Circumstances encountered during construction may preclude the use of precast unit structures, as determined by the Engineer. If the contractor elects to use precast unit structures and field changes prohibit their use, no compensation will be made to the contractor for having these units manufactured, supplied, to the project, and not utilized.
- g. Special precast units for use on large diameter sewers must have the approval of the Engineer.
3. All vertical holes in concrete block structure wall shall be completely filled with mortar. All vertical wall joints shall be buttered.
4. The first pipe length entering or leaving any structure shall be temporarily supported by suitable means until the structure is completed and backfilled.
5. A poured Grade S1 concrete base without steel reinforcement, may be substituted for a precast base as approved by the Engineer. A porous backfill cushion will not be required under the poured base, unless the Contractor has excavated below the required elevation, at which time the Engineer will decide as to the merits of increasing the thickness of the concrete base or the use of a porous backfill cushion.
6. The conical section of brick or block manholes, catch basins or inlets, shall be shrouded with a geotextile blanket from the top down to 1 foot below the conical section. Precast structures shall be shrouded with the geotextile blanket to a point 1 foot below the stack. Enough geotextile material will be left on the top to roll over the brick stack and under the casting. Also, wrap inlet and outlet pipes at connection to the structures with a geotextile blanket, minimum 1 foot each direction. The geotextile blanket shall meet the requirements of Subsection 910.03.A in the 2003 MDOT Standard Specifications for Construction.
7. A 10 feet length of 6 inch Underdrain in Sewer Trench will be required at proposed drainage structure that do not have longer lengths of underdrain connected to them (see Standard Plan S-14). The cost of these 10 feet lengths of underdrain with end caps shall be included in the cost of the drainage structure.
8. Steps are required for all structures over 10 feet in depth. Steps shall be of an approved design, made of cast iron, aluminum, or plastic coated steel. Rungs shall be a minimum of 10 inches clear length and designed to prevent the foot from slipping off the end. The minimum horizontal load shall be 405 lbf. The minimum vertical load shall be 810 lbf.

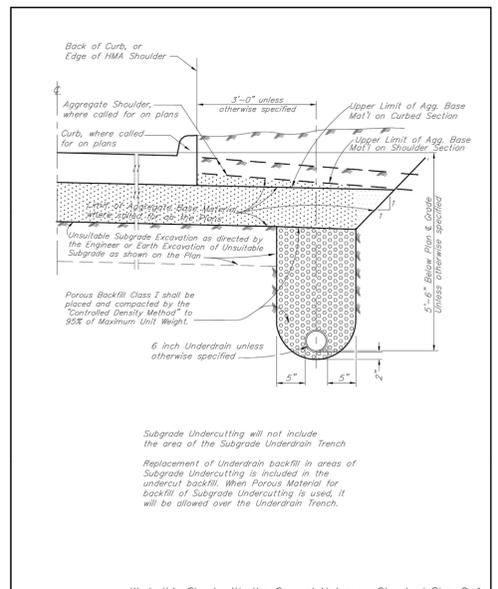
REVISION DATE: 08/01/07	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING:	PERMIT STANDARDS	S-1
DESIGN PERMIT ENGINEER:	GENERAL NOTES	SHEET 2 OF 2

NOTE: THIS IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL SIGNED COPY FOR PUBLICATION IS KEPT ON FILE AT THE WAYNE COUNTY ENGINEERING OFFICE.



SEWER TRENCH "B"
NOTE:
PVC PIPE:
MIN. TRENCH WIDTH = 1.5 X O.D.+12" (FOR ALL INSTALLATION DEPTHS)
HOPE PIPE:
PER MANUFACTURER'S RECOMMENDATIONS

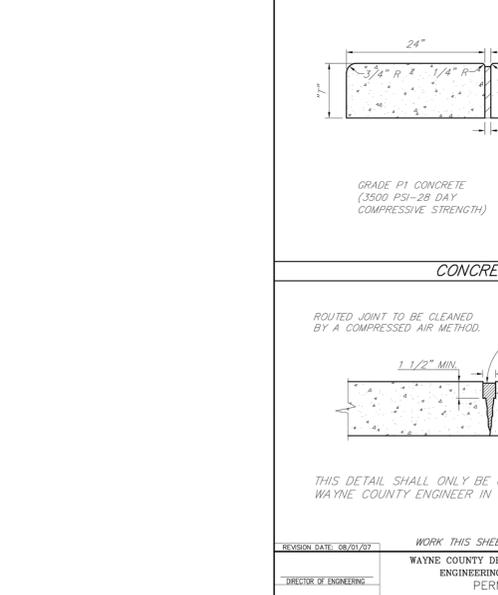
WAYNE COUNTY S-12



REVISION DATE: 08/01/07	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING:	PERMIT STANDARDS	S-14
DESIGN PERMIT ENGINEER:	UNDERDRAIN	SHEET 1 OF 2

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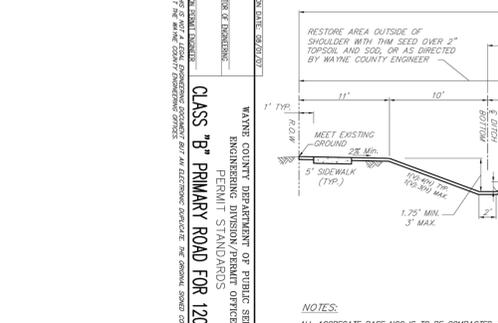
Work this Sheet with the General Notes on Standard Plan S-1



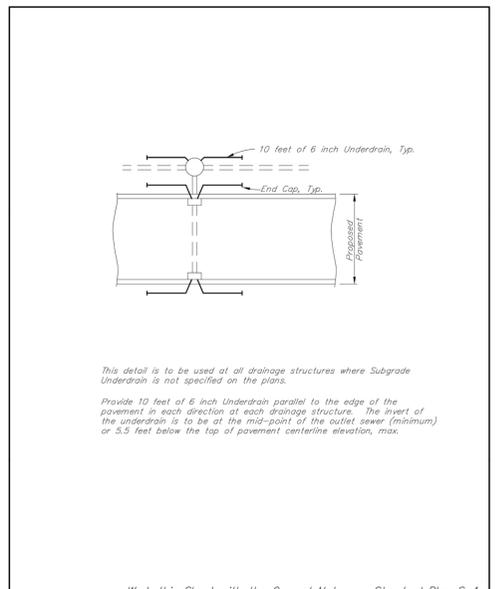
REVISION DATE: 08/01/07	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING:	PERMIT STANDARDS	RS-4
DESIGN PERMIT ENGINEER:	END HEADER & CONCRETE ROUTING DETAILS	SHEET 1 OF 1

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WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1



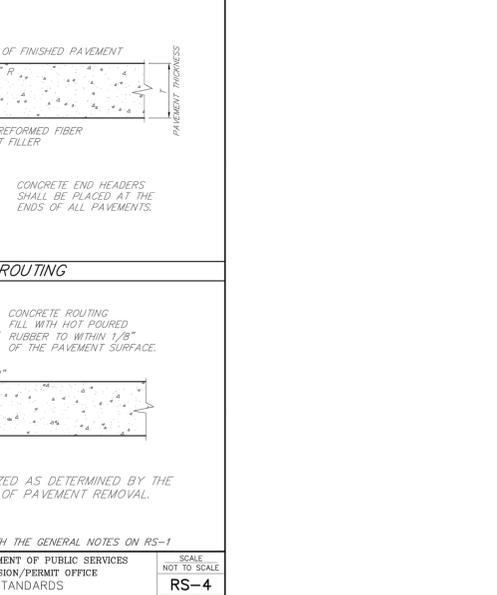
END HEADER & CONCRETE ROUTING DETAILS
THIS DETAIL SHALL ONLY BE UTILIZED AS DETERMINED BY THE WAYNE COUNTY ENGINEER IN LIEU OF PAVEMENT REMOVAL.



REVISION DATE: 08/01/07	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING:	PERMIT STANDARDS	S-14
DESIGN PERMIT ENGINEER:	UNDERDRAIN	SHEET 2 OF 2

NOTE: THIS IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL SIGNED COPY FOR PUBLICATION IS KEPT ON FILE AT THE WAYNE COUNTY ENGINEERING OFFICE.

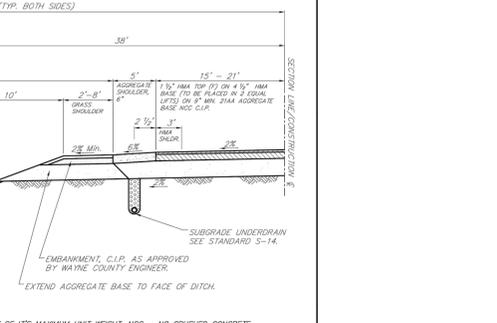
Work this Sheet with the General Notes on Standard Plan S-1



REVISION DATE: 08/01/07	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING:	PERMIT STANDARDS	RS-4
DESIGN PERMIT ENGINEER:	END HEADER & CONCRETE ROUTING DETAILS	SHEET 1 OF 1

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WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1



END HEADER & CONCRETE ROUTING DETAILS
THIS DETAIL SHALL ONLY BE UTILIZED AS DETERMINED BY THE WAYNE COUNTY ENGINEER IN LIEU OF PAVEMENT REMOVAL.

GPD GROUP
Professional Corporation
520 South Main Street, Suite 2511
Akron, OH 44311
330.572.2100 Fax: 330.572.2102

ISSUED FOR BID	07/30/18
CONTRACT DATE:	XX.XX.XX
BUILDING TYPE:	T40M-O
PLAN VERSION:	JAN 18
SITE NUMBER:	312720/46548
STORE NUMBER:	2017088.72

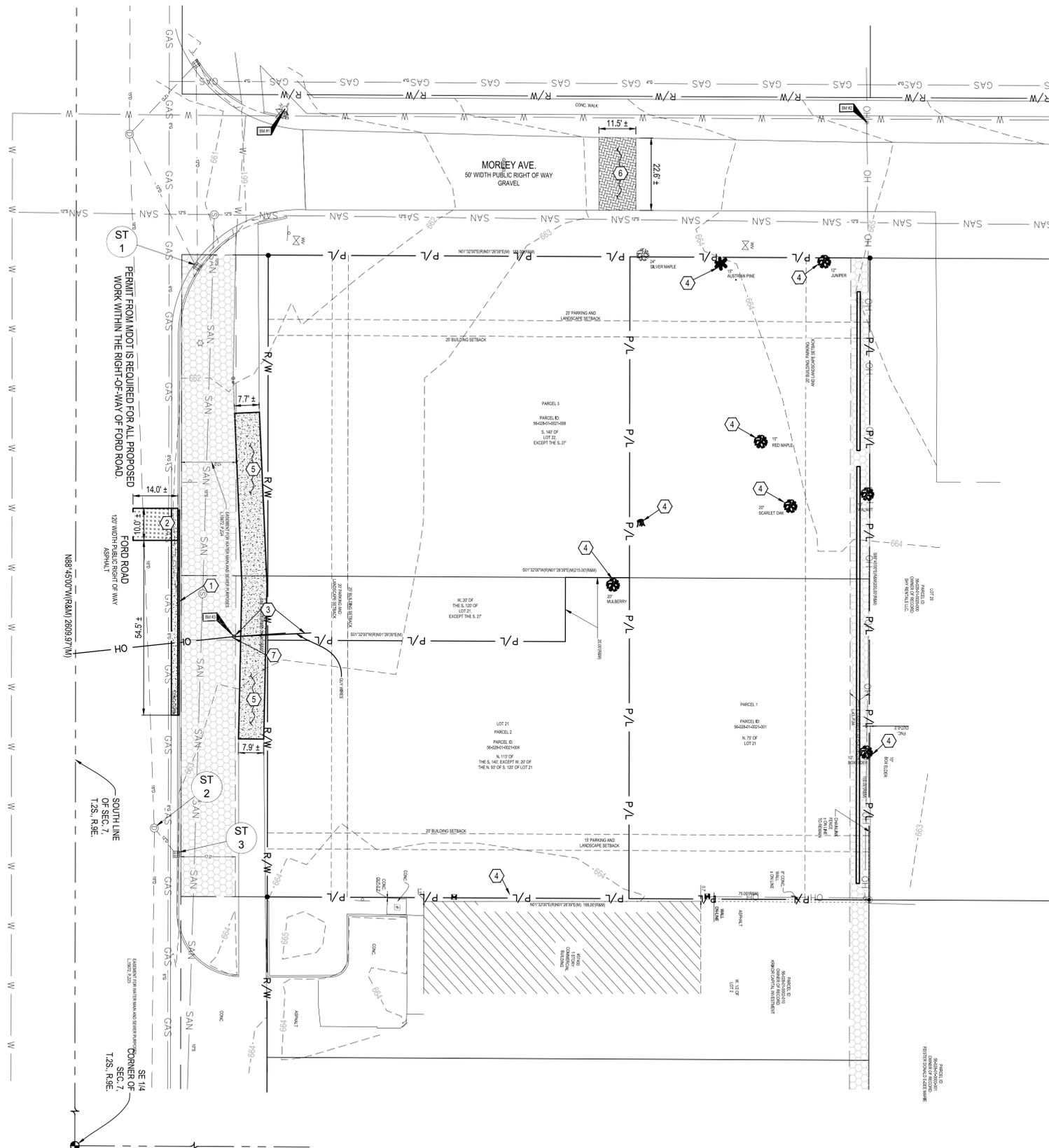
TACO BELL
20779 13 MILE RD.
WESTLAND, MI

MODERN EXPLORER
T40 - OPEN KITCHEN

GENERAL NOTES (CONT.)

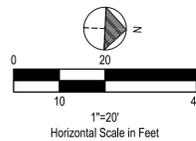
C-002

FORD ROAD 120' WIDTH PUBLIC RIGHT OF WAY



GENERAL SHEET NOTES

- SEE INDEX MAP, SHEET C-001 FOR LOCATION OF EXISTING BENCHMARKS.
- CONTRACTOR TO RE-ESTABLISH BENCHMARK #3 UPON RELOCATION OF EXISTING GUY POLE.
- ALL UTILITY PROVIDERS/CONTRACTORS (I.E. GAS, ELECTRIC, TELECOMMUNICATION) MUST OBTAIN SEPARATE PERMITS FROM MDOT FOR THE WORK INDICATED WITHIN THIS PLAN SET AND LOCATED IN MDOT RIGHT-OF-WAY.
- PAVEMENT REPAIRS INDICATED ON M-153 (FORD RD) FOR UTILITY WORK SHALL BE ONE FULL LANE WIDTH.



PLAN KEYNOTES (#)

- EXISTING CURB / CURB AND GUTTER TO BE REMOVED.
- EXISTING PAVEMENT TO BE REMOVED.
- EXISTING GUY POLE AND WIRE(S) TO BE REMOVED/RELOCATED, CONTRACTOR TO COORDINATE WITH ELECTRIC COMPANY.
- EXISTING LANDSCAPING (INCLUDING BUSHES, TREES, ETC.) TO BE REMOVED.
- EXISTING WALK TO BE REMOVED.
- EXISTING GRAVEL ROAD TO BE TRENCHED OPEN FOR UTILITY WORK. CONTRACTOR TO REPLACE PER CITY STANDARDS.
- CONTRACTOR SHALL HAVE PROFESSIONAL SURVEYOR RELOCATE BENCHMARK PRIOR TO SITE DISTURBANCE.

DEMOLITION NOTES:

- ALL EXISTING SITE AND SURROUNDING FEATURES SUCH AS UTILITIES, PAVEMENT, CURB, LANDSCAPING, ETC. SHALL REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION UNLESS NOTED OTHERWISE, OR ARE REQUIRED TO BE MODIFIED OR REMOVED FOR THE INSTALLATION OF PROPOSED IMPROVEMENTS. ALL DISTURBED FEATURES SHALL BE RESTORED OR RELOCATED AS REQUIRED TO THE SATISFACTION OF THE OWNER. CONTRACTOR SHALL REPAIR/REPLACE ANY SURROUNDING FEATURES DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES AT NO ADDITIONAL COST AND TO THE SATISFACTION OF THE OWNER.
- SEE SHEET L-101 FOR TREE REMOVAL AND REPLACEMENT CHART.

LEGEND

(SEE SHEET C-001 FOR GENERAL LEGEND)

- EXISTING ASPHALT TO BE REMOVED
- EXISTING CONCRETE TO BE REMOVED
- EXISTING EASEMENT FOR WATER MAIN AND SEWER PURPOSES L.15672, P.223
- EXISTING GRAVEL ROAD TO BE TRENCHED FOR UTILITY WORK
- ## ± DENOTES LIMITS OF SAWCUT
- DEMOLITION KEYNOTE

EXISTING STRUCTURES

STRICT. ID	STRUCTURE DETAILS
ST 1	EXISTING STORM CATCH BASIN RIM=660.72' INV. 12' CONC (W)=656.52'
ST 2	EXISTING STORM MANHOLE RIM=662.70' PAVED IN PLACE
ST 3	EXISTING STORM CATCH BASIN RIM=662.49' INV. 12' CONC. (SW)=657.19'
SAN 1	EXISTING SANITARY MANHOLE RIM=662.71' INV. 8' (E&W)=653.11'

MICHIGAN'S ONE - CALL
UTILITY NOTIFICATION ORGANIZATION

THREE FULL WORKING DAYS BEFORE YOU DIG.
 CALL THE MISS DIG SYSTEM AT
 1-(800)-482-7171

OR CALL #DIG
 FREE FROM YOUR AT&T OR CINGULAR CELLULAR PHONE

THE MISS DIG MEMBER UTILITIES WILL MARK THE APPROXIMATE LOCATION OF THEIR UNDERGROUND PUBLIC UTILITY LINES AT NO CHARGE.

- SITE BENCHMARK #1:**
ARROW ON HYDRANT, AT THE NORTHWEST CORNER OF FORD ROAD AND MORLEY ROAD.
ELEVATION = 664.67' (NAVD88)
- SITE BENCHMARK #2:**
SET MAG NAIL ON EAST SIDE OF UTILITY POLE, ON WEST SIDE OF MORLEY, 200 FEET NORTH OF FORD ROAD.
ELEVATION = 666.18' (NAVD88)
- SITE BENCHMARK #3:**
SET MAG NAIL ON NORTH SIDE OF GUY POLE, ON NORTH SIDE OF FORD ROAD, NEAR THE MIDDLE OF SITE.
ELEVATION = 663.88' (NAVD88)

ISSUED FOR BID 07/30/18

CONTRACT DATE: XX.XX.XX
 BUILDING TYPE: T40M-O
 PLAN VERSION: JAN 18
 SITE NUMBER: 312720/446548
 STORE NUMBER: 2017088.72

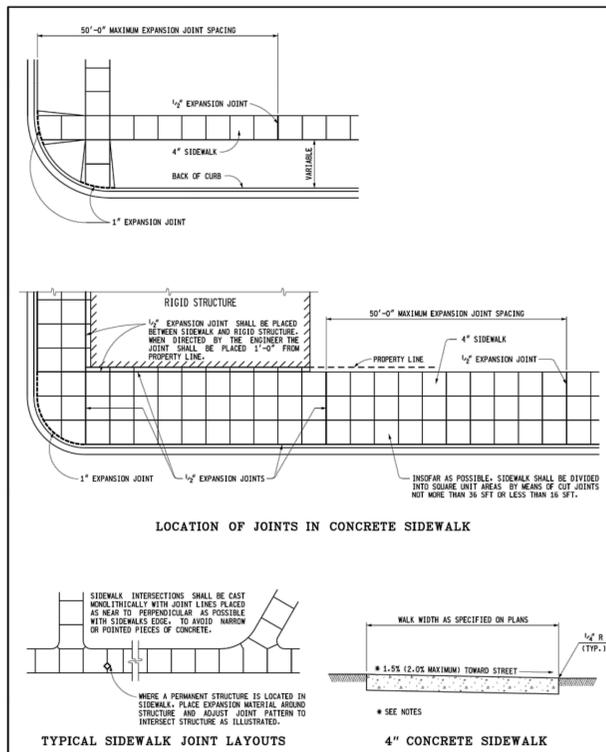
TACO BELL
20779 13 MILE RD.
WESTLAND, MI



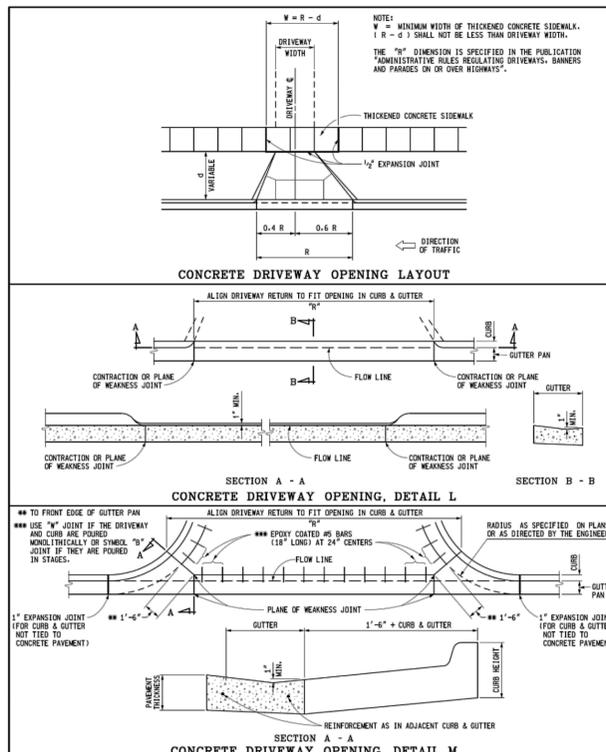
MODERN EXPLORER
T40 - OPEN KITCHEN

DEMOLITION PLAN

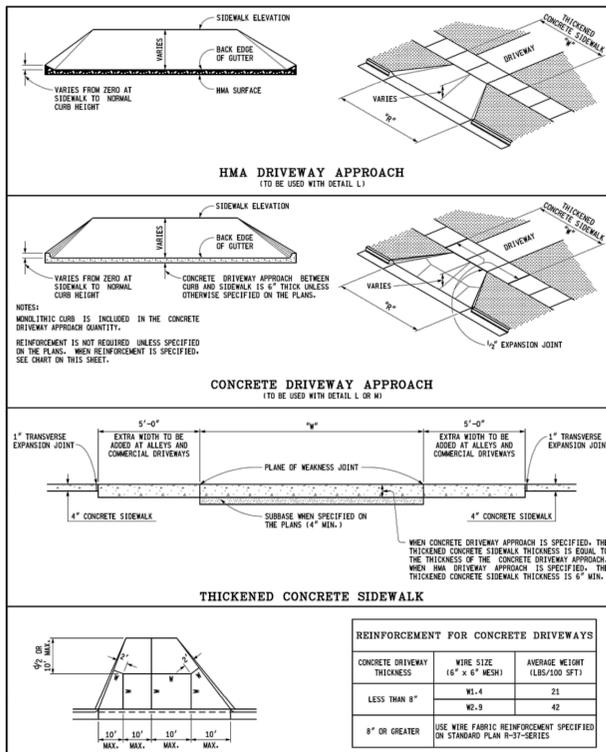
C-101



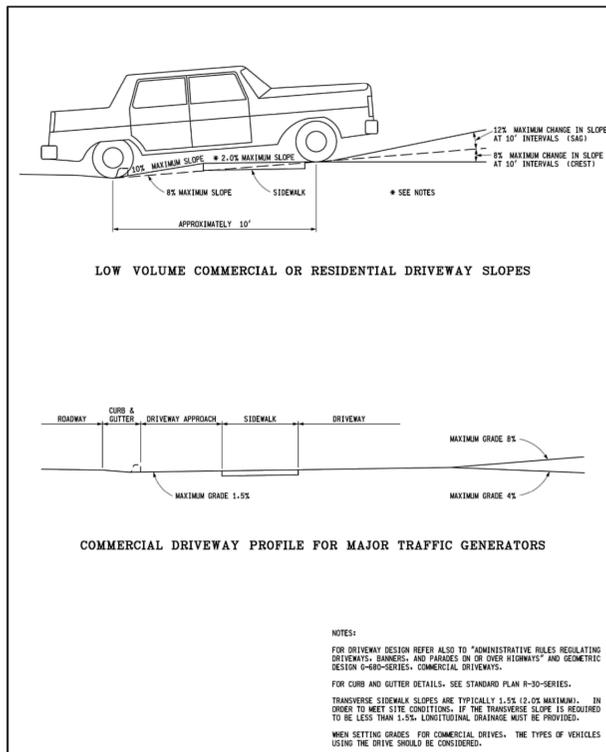
DEPARTMENT DIRECTOR 906 T. Boudin MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR DRIVEWAY OPENINGS & APPROACHES, AND CONCRETE SIDEWALK		9-30-2014 F.I.R.A. APPROVAL 7-1-2014 PLAN DATE R-29-I	SHEET 1 OF 4
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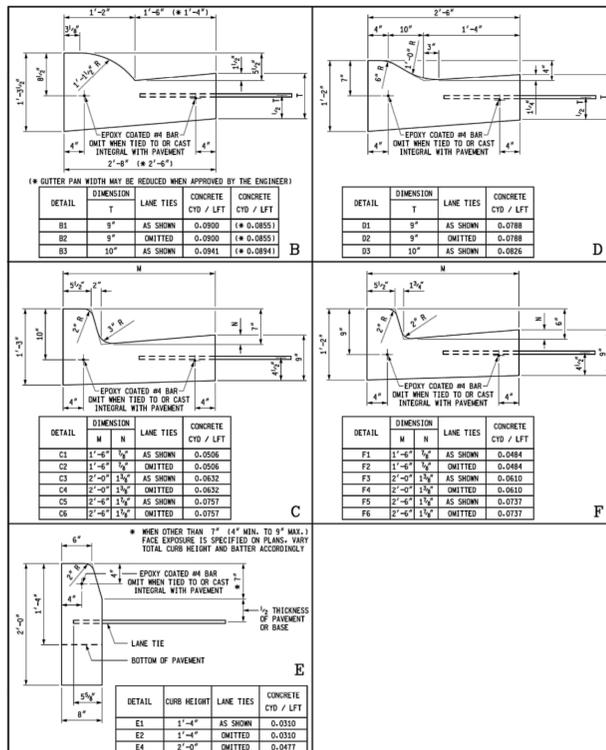
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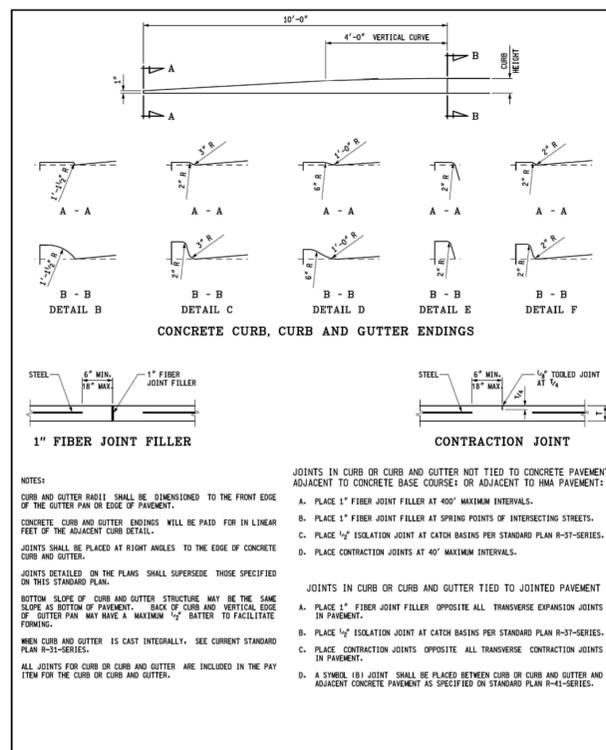
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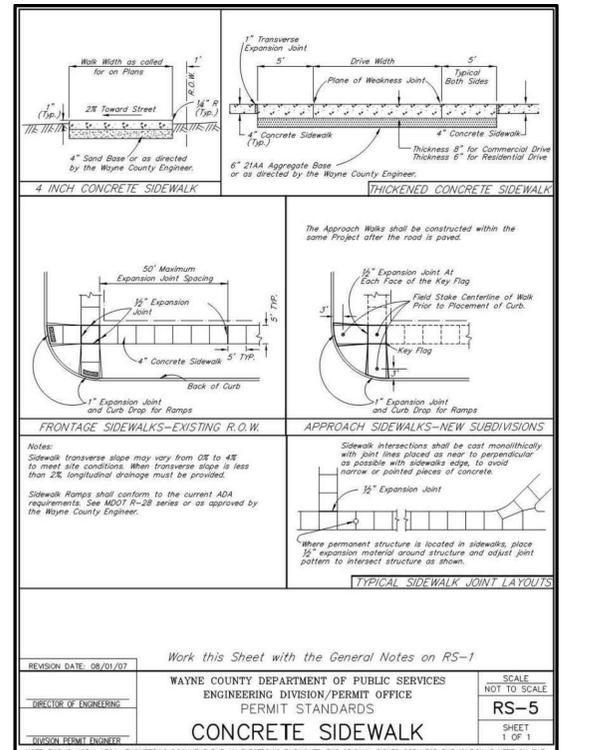
DEPARTMENT DIRECTOR 906 T. Boudin MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR DRIVEWAY OPENINGS & APPROACHES, AND CONCRETE SIDEWALK		9-30-2014 F.I.R.A. APPROVAL 7-1-2014 PLAN DATE R-29-I	SHEET 4 OF 4
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DEPARTMENT DIRECTOR 906 T. Boudin MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR CONCRETE CURB AND CONCRETE CURB & GUTTER		9-30-2014 F.I.R.A. APPROVAL 2-6-2014 PLAN DATE R-30-G	SHEET 1 OF 2
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DEPARTMENT DIRECTOR 906 T. Boudin MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR CONCRETE CURB AND CONCRETE CURB & GUTTER		9-30-2014 F.I.R.A. APPROVAL 2-6-2014 PLAN DATE R-30-G	SHEET 2 OF 2
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ISSUED FOR BID	07/30/18
CONTRACT DATE:	XX.XX.XX
BUILDING TYPE:	T40M-O
PLAN VERSION:	JAN 18
SITE NUMBER:	312720/446548
STORE NUMBER:	2017088.72

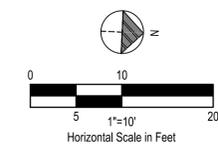
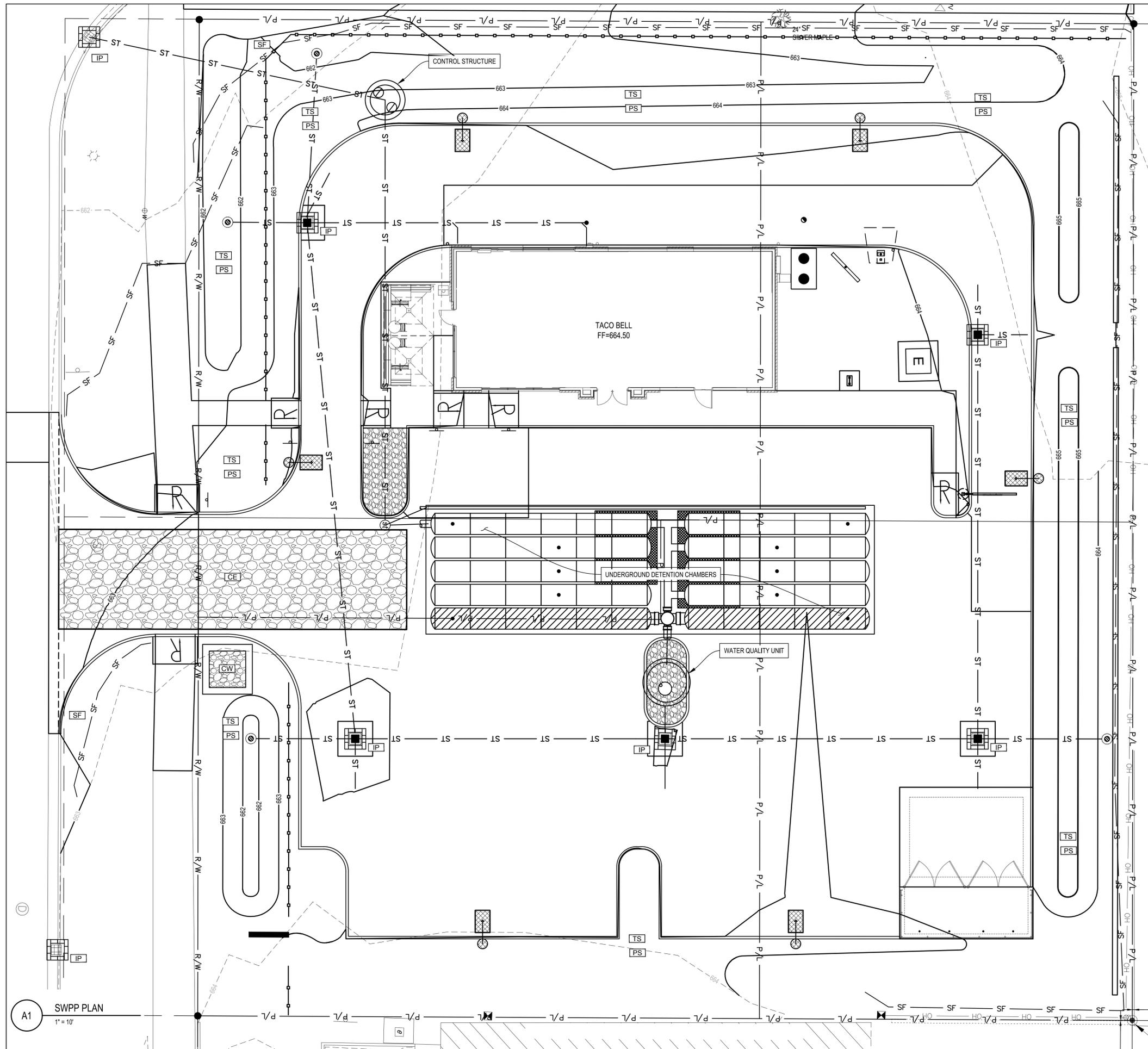
TACO BELL
20779 13 MILE RD.
WESTLAND, MI



MODERN EXPLORER
T40 - OPEN KITCHEN

**WAYNE COUNTY
AND MDOT
DETAILS**

C-112



- SWPP KEYNOTES**
- TS TEMPORARY SEEDING
 - PS PERMANENT SEEDING
 - CW CONCRETE WASHOUT AREA
 - SF SILT FENCE
 - CE CONSTRUCTION ENTRANCE
 - IP INLET PROTECTION

- LEGEND**
(SEE SHEET C-001 FOR GENERAL LEGEND)
- PROPOSED SILT BARRIER
REFER TO SWPP DETAILS
 - SF PROPOSED SILT FENCE
REFER TO SWPP DETAILS
 - PROPOSED CONSTRUCTION ENTRANCE
REFER TO SWPP DETAILS
 - PROPOSED CONCRETE WASHOUT FACILITY
REFER TO SWPP DETAILS

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TACO BELL
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MODERN EXPLORER
T40 - OPEN KITCHEN

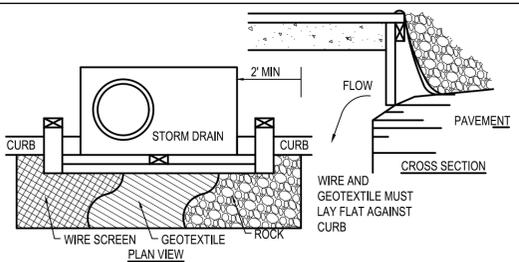
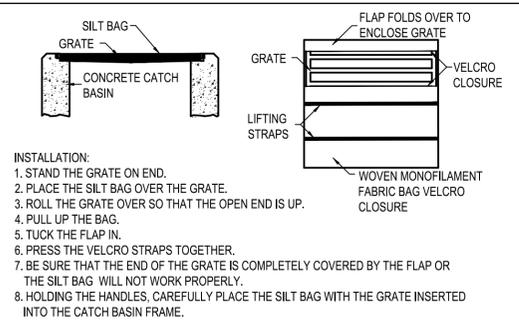
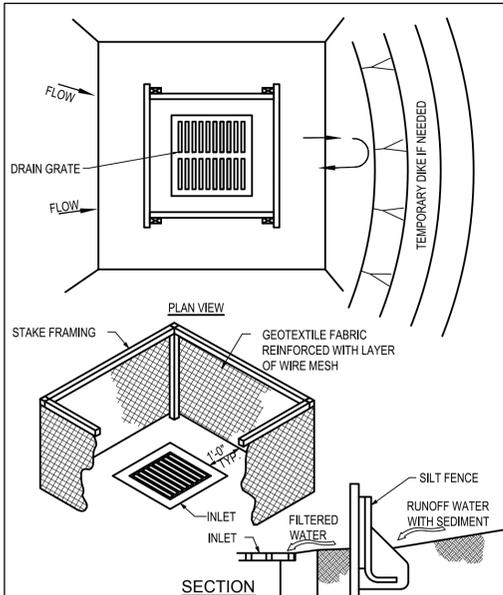
SWPP PLAN

SITE BENCHMARK #1:
ARROW ON HYDRANT, AT THE NORTHWEST CORNER OF FORD ROAD AND MORLEY ROAD.
ELEVATION = 664.67' (NAVD88)

SITE BENCHMARK #2:
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ELEVATION = 666.18' (NAVD88)

SITE BENCHMARK #3:
SET MAG NAIL ON NORTH SIDE OF GUY POLE, ON NORTH SIDE OF FORD ROAD, NEAR THE MIDDLE OF SITE.
ELEVATION = 663.88' (NAVD88)

A1 SWPP PLAN
1" = 10'



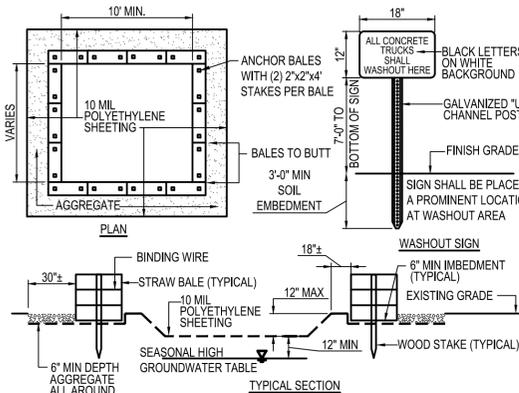
- NOTES:**
1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.
 2. SILT FENCE SHALL BE GEOTEXTILE FABRIC, PER STATE'S DEPARTMENT OF TRANSPORTATION STANDARDS, AND SHOULD BE CUT FROM A CONTINUOUS ROLL TO AVOID JOINTS.
 3. STAKES SHALL BE 1" x 2" WOOD (PREFERRED) OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF 3 FEET. STAKES SHALL BE SPACED AROUND THE PERIMETER OF THE INLET A MAXIMUM OF 3 FEET APART AND SECURELY DRIVEN INTO THE GROUND (MINIMUM OF 8 INCHES). THE TOP OF THE FRAME SHALL BE AT LEAST 6 IN. BELOW ADJACENT ROADS IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.
 4. WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.
 5. THE SILT FENCE SHALL BE STAPLED WITH HEAVY DUTY WIRE STAPLES AT LEAST 1/2 INCH LONG, TO THE WOODEN STAKES, AND 8 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH, THE HEIGHT OF THE FILTER BARRIER SHALL BE A MINIMUM OF 15 INCHES AND SHALL NOT EXCEED 18 INCHES (PLATE 1.08B).
 6. THE GEOTEXTILE SHALL OVERLAP ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.
 7. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 INCHES DEEP AROUND THE OUTSIDE PERIMETER OF THE STAKES.
 8. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6 IN. LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.
 9. A COMPACTED EARTH DIKE OR A CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION AND IF RUNOFF BYPASSING THE INLET WILL NOT FLOW TO A SETTLING POND. THE TOP OF EARTH DIKES SHALL BE AT LEAST 6 IN. HIGHER THAN THE TOP OF THE FRAME.

- INSTALLATION:**
1. STAND THE GRATE ON END.
 2. PLACE THE SILT BAG OVER THE GRATE.
 3. ROLL THE GRATE OVER SO THAT THE OPEN END IS UP.
 4. PULL UP THE BAG.
 5. TUCK THE FLAP IN.
 6. PRESS THE VELCRO STRAPS TOGETHER.
 7. BE SURE THAT THE END OF THE GRATE IS COMPLETELY COVERED BY THE FLAP OR THE SILT BAG WILL NOT WORK PROPERLY.
 8. HOLDING THE HANDLES, CAREFULLY PLACE THE SILT BAG WITH THE GRATE INSERTED INTO THE CATCH BASIN FRAME.
- MAINTENANCE:**
- TO INSURE PROPER OPERATION REMOVE SILT, SEDIMENT, AND DEBRIS FROM THE SURFACE AND THE VICINITY OF THE UNIT WITH A SQUARE POINT SHOVEL OR STIFF BRISTLE BROOM AWAY FROM ENVIRONMENTALLY SENSITIVE AREAS AND WATERWAYS IN MANNER SATISFACTORY TO THE ENGINEER/INSPECTOR. REMOVE FINE MATERIAL FROM INSIDE SILT BAG AS NEEDED. DISPOSE OF SILT BAG NO LONGER IN USE AT AN APPROPRIATE RECYCLING OR SOLID WASTE FACILITY.
- INLET INSPECTION:**
- TO INSPECT INLET, REMOVE SILT BAG WITH GRATE INSIDE, INSPECT CATCH BASIN AND REPLACE SILT BAG BACK INTO GRATE FRAME.
- NOTE:**
- PONDING IS LIKELY IF SEDIMENT IS NOT REMOVED REGULARLY. THE SILT BAG MUST NEVER BE USED WHERE OVERFLOW MAY ENDANGER AN EXPOSED SLOPE.

- 1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE INLET BECOMES FUNCTIONAL.**
- 2. CONSTRUCT A WOODEN FRAME OF 2-BY-4-IN. CONSTRUCTION-GRADE LUMBER. THE END SPACERS SHALL BE A MINIMUM OF 1 FT. BEYOND BOTH ENDS OF THE THROAT OPENING. THE ANCHORS SHALL BE NAILED TO 2-BY-4-IN. STAKES DRIVEN ON THE OPPOSITE SIDE OF THE CURB.**
- 3. THE WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC AND STONE. IT SHALL BE A CONTINUOUS PIECE WITH A MINIMUM WIDTH OF 30 IN. AND 4 FT. LONGER THAN THE THROAT LENGTH OF THE INLET, 2 FT. ON EACH SIDE.**
- 4. GEOTEXTILE CLOTH SHALL HAVE AN EQUIVALENT OPENING SIZE (EOS) OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE AT LEAST THE SAME SIZE AS THE WIRE MESH.**
- 5. THE WIRE MESH AND GEOTEXTILE CLOTH SHALL BE FORMED TO THE CONCRETE GUTTER AND AGAINST THE FACE OF THE CURB ON BOTH SIDES OF THE INLET AND SECURELY FASTENED TO THE 2-BY-4-IN. FRAME.**
- 6. TWO-INCH STONE SHALL BE PLACED OVER THE WIRE MESH AND GEOTEXTILE IN SUCH A MANNER AS TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE CLOTH.**
- 7. THIS TYPE OF PROTECTION MUST BE INSPECTED FREQUENTLY AND THE STONE AND/OR GEOTEXTILE REPLACED WHEN CLOGGED WITH SEDIMENT.**

C2 SILT BAG INLET PROTECTION
N.T.S.

C3 CURB INLET PROTECTION
N.T.S.



- NOTES:**
1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
 2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
 3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
 4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
 5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
 6. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

B2 CONCRETE WASHOUT AREA
N.T.S.

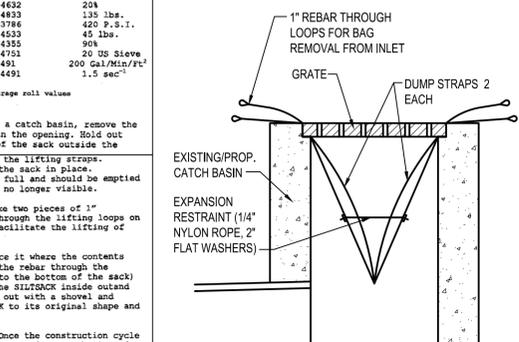
B1 YARD INLET PROTECTION
N.T.S.

SILTSACK Regular Flow			
Property	Test Method	Test Result	
Grab Tensile	ASTM D-4632	390 lbs.	
Grab Elongation	ASTM D-4632	20%	
Puncture	ASTM D-4633	120 lbs.	
Mullen Burst	ASTM D-3786	800 P.S.I.	
Trapezoid Tear	ASTM D-4535	120 lbs.	
UV Resistance	ASTM D-4355	80%	
Apparent Opening	ASTM D-4751	40 US Sieve	
Flow Rate	ASTM D-4491	40 Gal./Min./Ft. ²	
Permittivity	ASTM D-4491	0.55 sec ⁻¹	

SILTSACK Hi-Flow			
Property	Test Method	Test Result	
Grab Tensile	ASTM D-4632	20%	
Grab Elongation	ASTM D-4632	135 lbs.	
Puncture	ASTM D-4633	420 P.S.I.	
Mullen Burst	ASTM D-3786	45 lbs.	
Trapezoid Tear	ASTM D-4355	90%	
UV Resistance	ASTM D-4355	20 US Sieve	
Apparent Opening	ASTM D-4751	200 Gal./Min./Ft. ²	
Flow Rate	ASTM D-4491	1.5 sec ⁻¹	

3.0 Construction Sequence

- 3.1.1 To install the SILTSACK in a catch basin, remove the grate and place the sack in the opening. Hold out approximately six inches of the sack outside the frame. This is the area of the lifting straps.
- 3.1.2 Replace the grate to hold the sack in place.
- 3.1.3 The SILTSACK is considered full and should be emptied when the restraint cord is no longer visible.
- 3.1.4 To remove the SILTSACK, take two pieces of 1" diameter rebar and place through the lifting loops on each side of the sack to facilitate the lifting of the SILTSACK.
- 3.1.5 To empty the SILTSACK, place it where the contents will be collected. Place the rebar through the lifting straps (connected to the bottom of the sack) and lift. This will turn the SILTSACK inside out and empty the contents. Clean out with a shovel and rinse. Return the SILTSACK to its original shape and place back in the basin.
- 3.1.6 The SILTSACK is reusable. Once the construction cycle is complete, remove the SILTSACK from the basin and clean. The SILTSACK should be stored out of the sunlight until needed on another project.



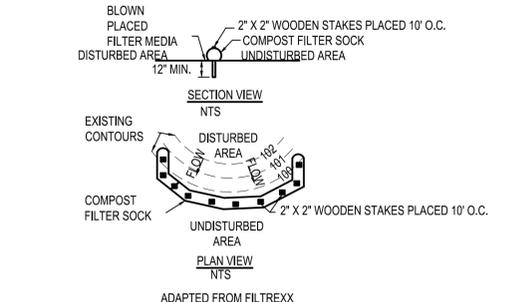
A1 SILTSACK DETAIL
N.T.S.

COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS					
MATERIAL TYPE	3 mil HDPE	5 mil HDPE	5 mil HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPF)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (MFPF)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" 18"	12" 18" 24"	18" 24"	12" 18" 24"	12" 18" 24"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	% AT 1000 HR.	23% AT 1000 HR.		100% AT 1000 HR.	100% AT 1000 HR.
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS

SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS

TWO-PLY SYSTEMS	
INNER CONTAINMENT NETTING	HDPE BIAXIAL NET
	CONTINUOUSLY WOUND FUSION-WELDED JUNCTURES
	3/4" X 3/4" MAX. APERTURE SIZE COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER & NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH)
	3/16" MAX. APERTURE SIZE
OUTER FILTRATION MESH	

COMPOST SHALL MEET THE FOLLOWING STANDARDS:	
ORGANIC MATTER CONTENT	80% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5 - 8.0
MOISTURE CONTENT	35% - 55%
PARTICLE SIZE	98% PASS THROUGH 1" SCREEN
SOLUBLE SALT CONCENTRATION	5.0 dS MAXIMUM



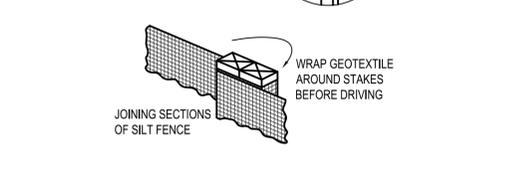
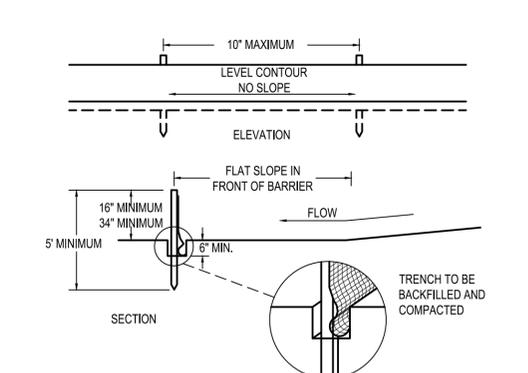
- COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT.
- TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
- ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
- SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH 1/2 INCH STORM RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
- BIODEGRADABLE FILTER SOCK SHALL BE REPLACED AFTER 6 MONTHS. PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

A4 COMPOST FILTER SOCK
N.T.S.

- NOTES:**
1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
 2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
 3. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.
 4. WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
 5. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FT. (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.
 6. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 IN. ABOVE THE ORIGINAL GROUND SURFACE.
 7. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6 INCH OVERLAP, AND SECURELY SEALED.
 8. POSTS SHALL BE A MINIMUM OF 5 FEET LONG, 2 INCHES IN DIAMETER AND SPACED A MAXIMUM OF 10 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND. WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET.
 9. THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MINIMUM OF 6 INCHES DEEP. THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
 10. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8 IN. OF CLOTH ARE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6 IN. DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED.
 11. WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS.
 12. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
 13. SEAMS BETWEEN SECTION OF SILT FENCE SHALL BE OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND.
 14. SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: A) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, B) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR C) OTHER PRACTICES SHALL BE INSTALLED.

MAINTENANCE:

SILT FENCE SHOULD BE INSPECTED REGULARLY AND FREQUENTLY AS WELL AS AFTER EACH RAINFALL EVENT TO INSURE THAT THEY ARE INTACT AND THERE ARE NO GAPS AT THE FENCE-GROUND INTERFACE OR TEARS ALONG THE LENGTH OF THE FENCE. IF GAPS OR TEARS ARE FOUND, THEY SHOULD BE REPAIRED OR THE FABRIC REPLACED IMMEDIATELY. ACCUMULATED SEDIMENTS SHOULD BE REMOVED FROM THE FENCE BASE WHEN THE SEDIMENT REACHES ONE-THIRD TO ONE-HALF THE HEIGHT OF THE FENCE. SEDIMENT REMOVAL SHOULD OCCUR MORE FREQUENTLY IF ACCUMULATED SEDIMENT IS CREATING NOTICEABLE STRAIN ON THE FABRIC AND THERE IS THE POSSIBILITY OF THE FENCE FAILING FROM A SUDDEN STORM EVENT. WHEN THE SILT FENCE IS REMOVED, THE ACCUMULATED SEDIMENT SHOULD BE REMOVED.



CRITERIA FOR GEOTEXTILE FABRIC SILT FENCE, PER CURRENT STATE'S DOT SPECIFICATIONS.

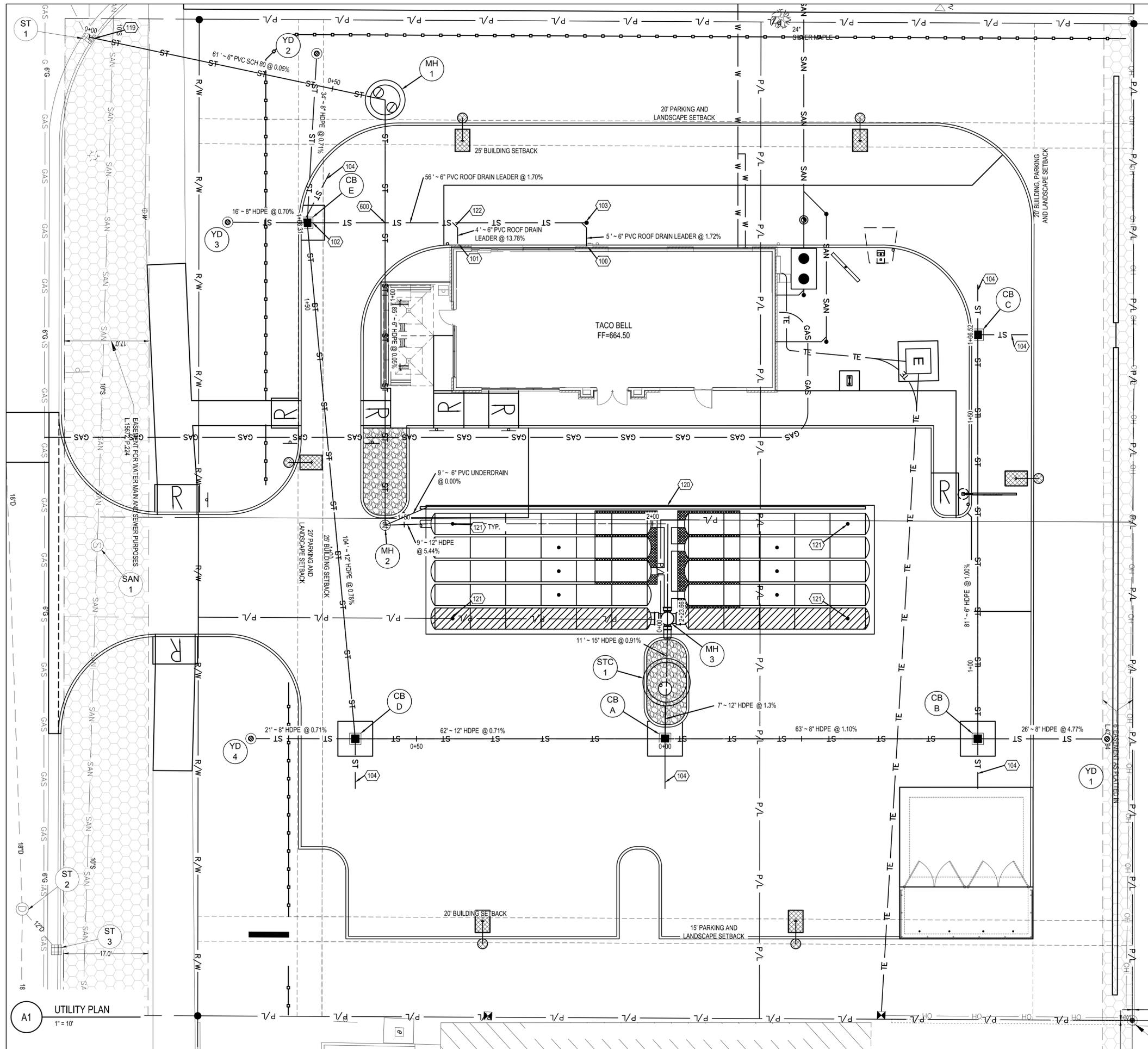
FABRIC PROPERTIES	VALUES	TEST METHOD
MINIMUM TENSILE STRENGTH	120 LB. MINIMUM	ASTM D 4832
MINIMUM BURST STRENGTH	200 PSI MINIMUM	
MINIMUM PERMITTIVITY	1x10 ⁻² sec ⁻¹	ASTM D 4491
APPARENT OPENING SIZE	AOS ≤ 0.84 mm	ASTM D 4751
UV EXPOSURE STRENGTH RETENTION	70%	ASTM G 4335
MAXIMUM ELONGATION AT 60 LBS.	50%	ASTM D 4632
MINIMUM PUNCTURE STRENGTH	50 LBS (220N)	ASTM D 4833
MINIMUM TEAR STRENGTH	40 LBS (180N)	ASTM D 4533

A5 SILT FENCE
N.T.S.



ISSUED FOR BID	07/30/18
CONTRACT DATE:	XX.XX.XX
PLANNING TYPE:	T40M-0
PLAN VERSION:	JAN 18
SITE NUMBER:	312720/446548
STORE NUMBER:	2017088.72





PLAN KEYNOTES

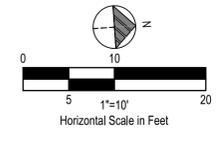
STORM

- 100. DOWNSPOUT INVERT AT BUILDING = 661.15.
- 101. DOWNSPOUT INVERT AT BUILDING = 661.20.
- 102. CONTRACTOR SHALL INSTALL 6" SDR 35 PVC STORM PIPE AND SUPPLY FITTINGS AS REQUIRED TO CONNECT PROPOSED DOWNSPOUT CONNECTIONS TO PROPOSED CATCH BASIN CB E. ALL PIPES SHALL MAINTAIN A MINIMUM COVER OF TWO FEET. THE CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED PIPE LOCATIONS AND NOTIFY CONSTRUCTION MANAGER IMMEDIATELY IF THERE ARE ANY ISSUES MAINTAINING POSITIVE DRAINAGE. CONTRACTOR SHALL INSTALL CLEANOUTS AS SHOWN ON PLAN, FLUSH WITH FINISHED PAVEMENT GRADE, SEE SHEET C-503.
- 103. PROPOSED STORM CLEANOUT AND WYE CONNECTION, SEE SHEET C-503. INV.=661.06.
- 104. PROPOSED FINGER DRAIN, SEE SHEET C-503.
- 119. CONTRACTOR SHALL CONNECT INTO EXISTING STRUCTURE WITH A WATERTIGHT SEAL.
- 120. PROPOSED STORMTECH UNDERGROUND DETENTION SYSTEM, SEE SHEETS C-146 & C-147 FOR SPECIFICATIONS AND DETAIL INFORMATION.
- 121. PROPOSED SC-740 INSPECTION PORT, SEE SHEET C-147.
- 122. PROPOSED WYE CONNECTION, SEE SHEET C-503. INV.=660.62.

UTILITY CROSSINGS

GENERAL CROSSING NOTES: CONTRACTOR SHALL COORDINATE ALL CROSSINGS WITH THE UTILITY COMPANY. PRESSURIZED AND SECONDARY UTILITIES SHALL DEFLECT TO MAINTAIN 18" CLEAR AT SANITARY OR STORM SEWER CROSSINGS.

- 600. PROPOSED UTILITY CROSSING: 12" STORM INV.=657.38; 6" STORM INV.=660.39.



EXISTING STRUCTURES	
STRCT. ID	STRUCTURE DETAILS
ST 1	EXISTING STORM CATCH BASIN RIM=660.72 INV. 12" CONC (W)=656.52 PROP. 6" PVC (N)=657.34'
ST 2	EXISTING STORM MANHOLE RIM=662.70 PAVED IN PLACE
ST 3	EXISTING STORM CATCH BASIN RIM=662.49 INV. 12" CONC. (SW)=657.19'
SAN 1	EXISTING SANITARY MANHOLE RIM=662.71 INV. 8" (E&W)=653.11'

PROPOSED STRUCTURES	
STRCT. ID	STRUCTURE DETAILS
CB A	4' DIA. CATCH BASIN, MDOT R-1-G RIM = 662.84 4" PVC UNDERDRAIN (E) 8" HDPE PIPE INV (N)=658.50 12" HDPE PIPE INV (S)=658.27 12" HDPE PIPE INV (W)=658.17
CB B	4' DIA. CATCH BASIN, MDOT R-1-G RIM = 663.00 4" PVC UNDERDRAIN (N&E) 6" HDPE PIPE INV (W)=659.36 8" HDPE PIPE INV (S)=659.19 8" HDPE PIPE INV (N)=659.29
CB C	4' DIA. CATCH BASIN, MDOT R-1-G 4" PVC UNDERDRAIN (N&W) RIM = 663.00 6" HDPE PIPE INV (E)=660.17
CB D	4' DIA. CATCH BASIN, MDOT R-1-G RIM = 662.79 4" PVC UNDERDRAIN (E&S) 12" HDPE PIPE INV (W)=658.81 12" HDPE PIPE INV (N)=658.71 8" HDPE PIPE INV (S)=659.04
CB E	4' DIA. CATCH BASIN, MDOT R-1-G RIM = 663.21 4" PVC UNDERDRAIN (NW) 4" HDPE PIPE INV (N)=660.12 12" HDPE PIPE INV (E)=659.62 8" HDPE PIPE INV (S)=659.62 8" HDPE PIPE INV (W)=659.62
MH 3	PROPOSED 4' DIA. STANDARD DIVERSION MANHOLE W/ 2' SUMP RIM = 663.42 15" HDPE PIPE INV (E)=657.90 12" HDPE PIPE INV (N&S)=657.74 12" HDPE PIPE INV (W)=658.65
MH 2	4' DIA. MANHOLE, MDOT R-1-G RIM = 663.57 12" HDPE PIPE INV (N)=657.41 6" PVC SCH 80 INV (W)=657.41 6" PVC INV (NW)=657.23
MH 1	PROPOSED FLOW RESTRICTOR STRUCTURE, FR-1, SEE SHEET C-145 RIM = 663.81 6" HDPE PIPE INV (S)=657.37 6" HDPE PIPE INV (E)=657.37
STC 1	STORMCEPTOR - STC 2400 RIM = 663.68 12" HDPE PIPE INV (E)=658.08 15" HDPE PIPE INV (W)=658.00
YD 1	YARD DRAIN, SEE SHEET C-502 RIM = 663.20 8" HDPE PIPE INV (S)=660.53
YD 2	YARD DRAIN, SEE SHEET C-502 RIM = 661.80 8" HDPE PIPE INV (E)=659.86
YD 3	YARD DRAIN, SEE SHEET C-502 RIM = 661.80 8" HDPE PIPE INV (N)=659.73
YD 4	YARD DRAIN, SEE SHEET C-502 RIM = 661.80 8" HDPE PIPE INV (N)=659.19

*INVERT(S) TO BE SET BASED ON PAVEMENT SECTION DESIGNED IN SOILS REPORT WHEN COMPLETED.



520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax: 330.572.2102

ISSUED FOR BID	07/30/18
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CONTRACT DATE: XX.XX.XX
BUILDING TYPE: T40M-O
PLAN VERSION: JAN 18
SITE NUMBER: 312720/446548
STORE NUMBER: 2017088.72

TACO BELL

20779 13 MILE RD.
WESTLAND, MI

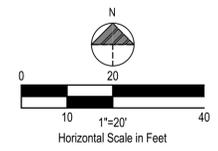
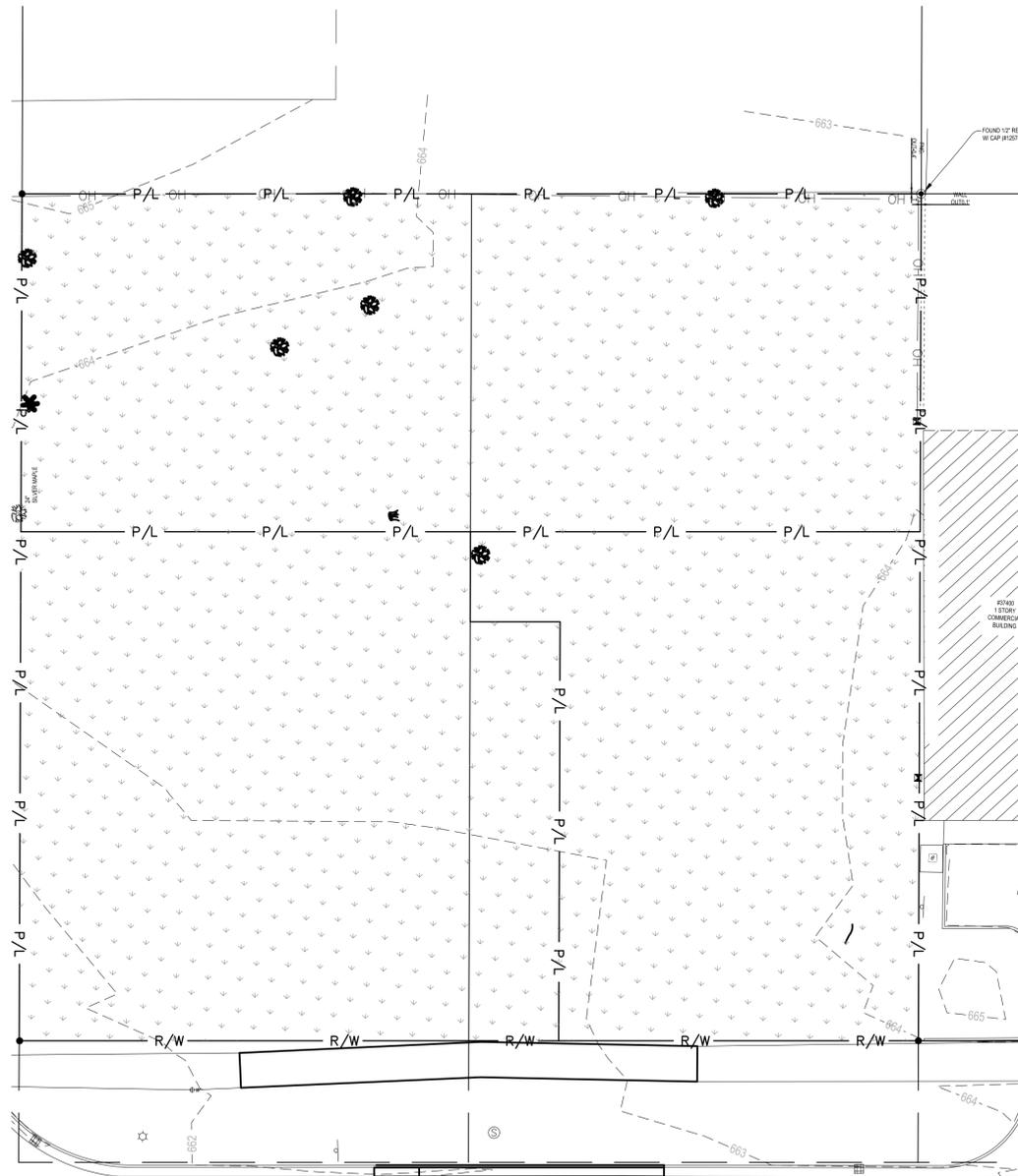


MODERN EXPLORER
T40 - OPEN KITCHEN

UTILITY PLAN (CONT.)

C-141

A1 UTILITY PLAN
1" = 10'



PERMIT FROM MDOT IS REQUIRED FOR ALL PROPOSED WORK WITHIN THE RIGHT-OF-WAY OF FORD ROAD.

FORD ROAD
120' WIDTH PUBLIC RIGHT OF WAY ASPHALT

IMPERVIOUS/PERVIOUS DELINEATION

- EXISTING IMPERVIOUS AREA
- EXISTING PERVIOUS AREA

TOTAL IMPERVIOUS DRAINAGE AREA = 0.00 AC
TOTAL PERVIOUS DRAINAGE AREA = 0.86 AC
IMPERVIOUS RUNOFF COEFFICIENT = 0.95
PERVIOUS RUNOFF COEFFICIENT = 0.25
TOTAL WEIGHTED RUNOFF COEFFICIENT = 0.25

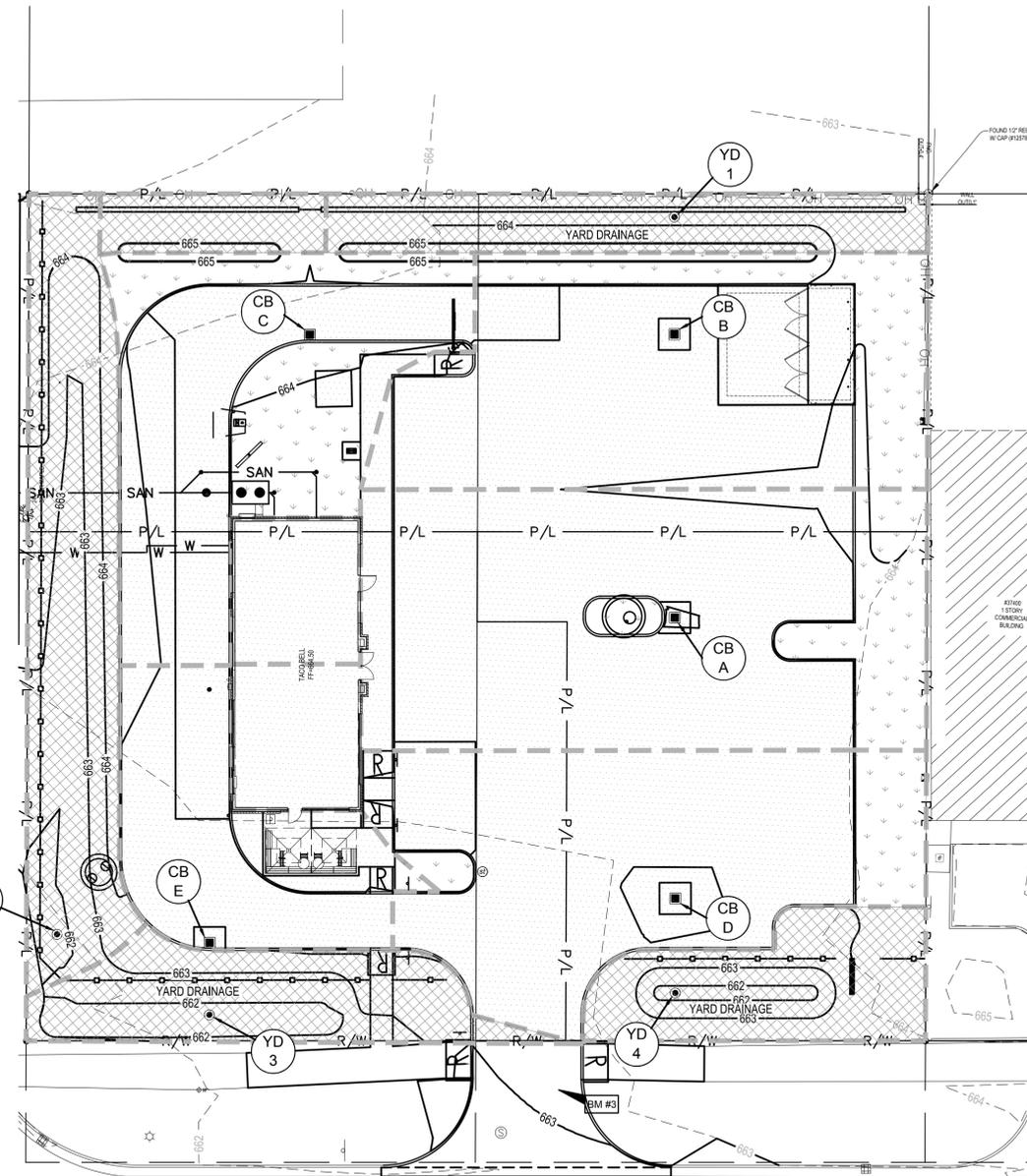
MDOT CALCULATION AREAS:
TOTAL IMPERVIOUS DRAINAGE AREA = 0.00 AC
TOTAL PERVIOUS DRAINAGE AREA = 0.86 AC
IMPERVIOUS CURVE NUMBERS = 98
PERVIOUS CURVE NUMBERS = 39
TOTAL WEIGHTED CURVE NUMBER (CONTROLLED) = 87
TOTAL WEIGHTED CURVE NUMBER (UNCONTROLLED) = 39

A2 EXISTING IMPERVIOUS/PERVIOUS MAP
1" = 20'

MDOT PRE-POST TABLE

	EXISTING	PROPOSED
	Q (CFS)	Q(CFS)
1-YR	0.000	0.020
2-YR	0.000	0.023
5-YR	0.000	0.028
10-YR	0.001	0.033
25-YR	0.004	0.062
50-YR	0.011	0.098
100-YR	0.047	0.173

NOTE: PRE TO POST COMPARISON VALUES WERE DETERMINED USING SCS SYNTHETIC HYDROGRAPH HYDRAULIC MODELING. THE FLOWS TO THE MDOT SYSTEM INCREASED FRACTIONALLY THROUGHOUT THE VARIOUS STORMS HOWEVER INCREASING STORAGE WOULD AFFECT STORAGE AND DISCHARGE ELEVATIONS REQUIRED BY WAYNE COUNTY. THE RESULTS IN THE TABLE ABOVE SHOULD BE REVIEWED BY MDOT TO DETERMINE IF THE MINIMAL INCREASE ARE ACCEPTABLE.



PERMIT FROM MDOT IS REQUIRED FOR ALL PROPOSED WORK WITHIN THE RIGHT-OF-WAY OF FORD ROAD.

FORD ROAD
120' WIDTH PUBLIC RIGHT OF WAY ASPHALT

NOTE: EMERGENCY OVERLAND OVERFLOW FROM UNDERGROUND DETENTION SYSTEM FLOWS TO APRONS AND OUT TO PUBLIC ROADS.

IMPERVIOUS/PERVIOUS DELINEATION

- PROPOSED IMPERVIOUS AREA
- PROPOSED PERVIOUS AREA
- YARD DRAINAGE (PERVIOUS)

TOTAL IMPERVIOUS DRAINAGE AREA = 0.53 AC
TOTAL PERVIOUS DRAINAGE AREA = 0.33 AC
IMPERVIOUS RUNOFF COEFFICIENT = 0.95
PERVIOUS RUNOFF COEFFICIENT = 0.25
TOTAL WEIGHT RUNOFF COEFFICIENT = 0.68

MDOT CALCULATION AREAS:
TOTAL IMPERVIOUS DRAINAGE AREA = 0.53 AC
TOTAL PERVIOUS DRAINAGE AREA = 0.33 AC
IMPERVIOUS CURVE NUMBERS = 98
PERVIOUS CURVE NUMBERS = 39
TOTAL WEIGHTED CURVE NUMBER (CONTROLLED) = 75

A1 PROPOSED IMPERVIOUS/PERVIOUS MAP
1" = 20'

ISSUED FOR BID	07/30/18
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PLAN VERSION:	JAN 18
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TACO BELL
20779 13 MILE RD.
WESTLAND, MI



MODERN EXPLORER
T40 - OPEN KITCHEN

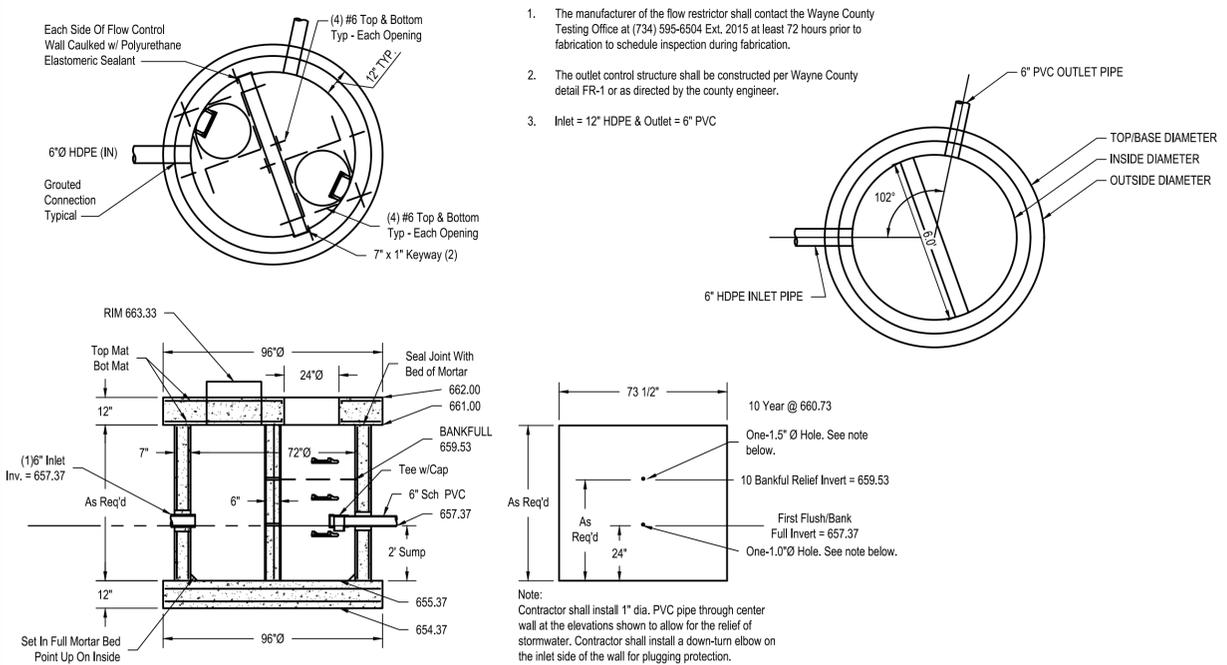
DRAINAGE MAPS

C-142

SITE BENCHMARK #1:
ARROW ON HYDRANT, AT THE NORTHWEST CORNER OF FORD ROAD AND MORLEY ROAD.
ELEVATION = 664.67' (NAVD88)

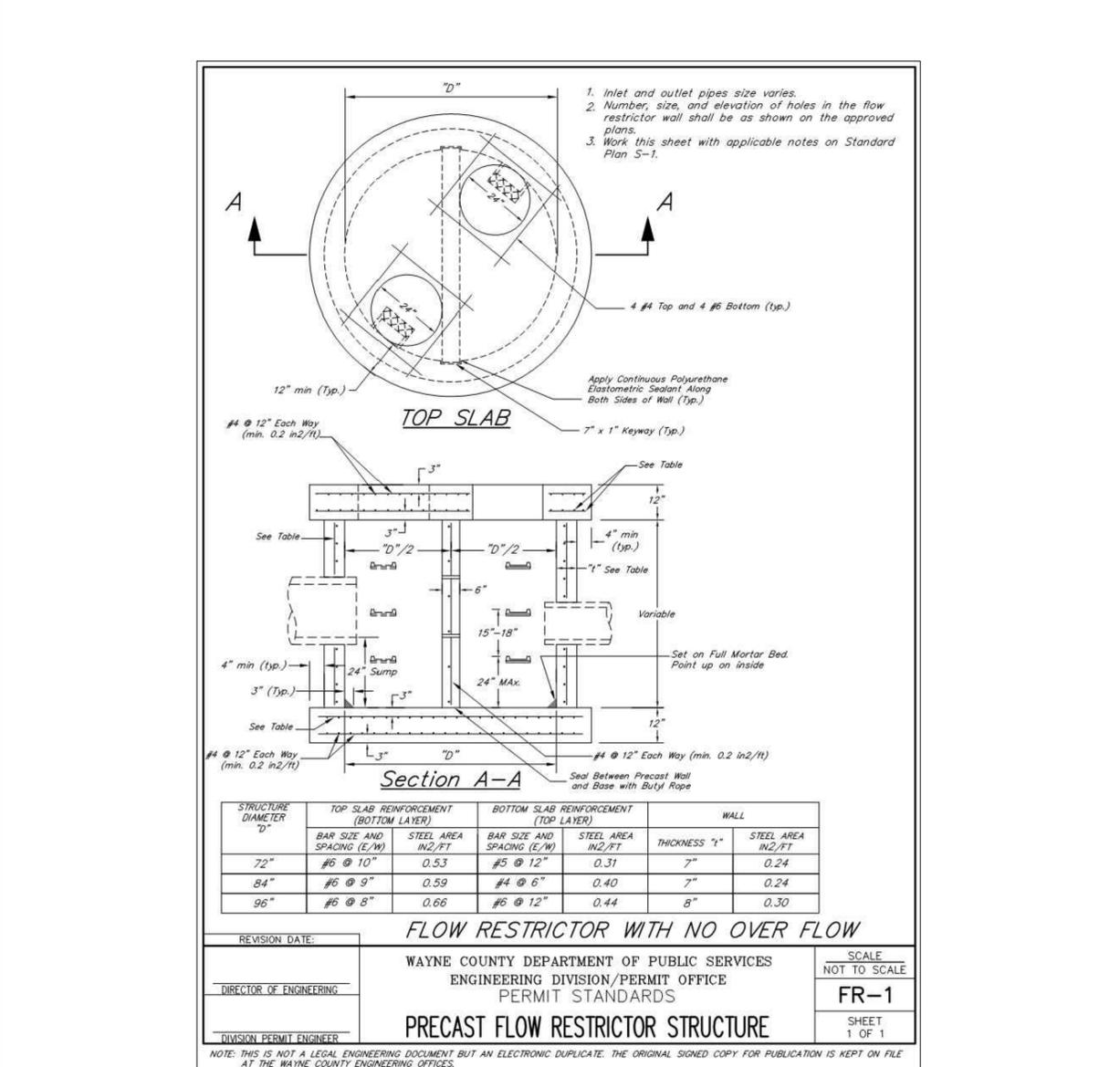
SITE BENCHMARK #2:
SET MAG NAIL ON EAST SIDE OF UTILITY POLE, ON WEST SIDE OF MORLEY, 200 FEET NORTH OF FORD ROAD.
ELEVATION = 666.18' (NAVD88)

SITE BENCHMARK #3:
SET MAG NAIL ON NORTH SIDE OF GUY POLE, ON NORTH SIDE OF FORD ROAD, NEAR THE MIDDLE OF SITE.
ELEVATION = 663.88' (NAVD88)



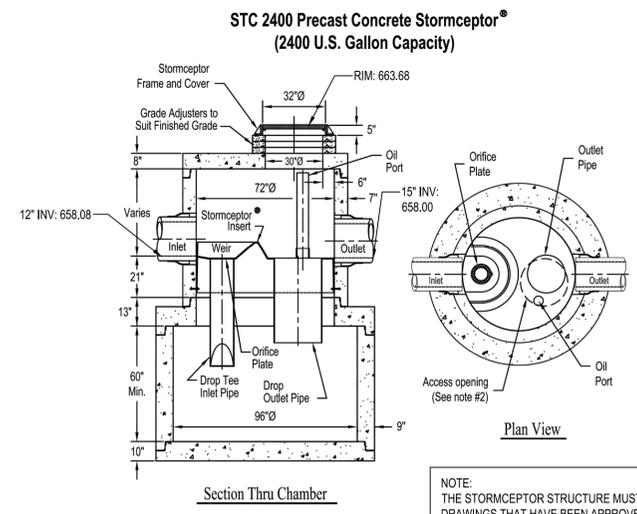
- The manufacturer of the flow restrictor shall contact the Wayne County Testing Office at (734) 595-6504 Ext. 2015 at least 72 hours prior to fabrication to schedule inspection during fabrication.
- The outlet control structure shall be constructed per Wayne County detail FR-1 or as directed by the county engineer.
- Inlet = 12" HDPE & Outlet = 6" PVC

OUTLET CONTROL STRUCTURE (MH 1)
N.T.S.



REVISION DATE: _____
WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES
ENGINEERING DIVISION/PERMIT OFFICE
PERMIT STANDARDS
PRECAST FLOW RESTRICTOR STRUCTURE
SCALE NOT TO SCALE
FR-1
SHEET 1 OF 1

NOTE: THIS IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL SIGNED COPY FOR PUBLICATION IS KEPT ON FILE AT THE WAYNE COUNTY ENGINEERING OFFICES.



- Notes:
- The Use Of Flexible Connection is Recommended at The Inlet and Outlet Where Applicable.
 - The Cover Should be Positioned Over The Outlet Drop Pipe and The Oil Port.
 - The Stormceptor System is protected by one or more of the following U.S. Patents: #5753115, #5849181, #6068765, #6371690, #7582216, #7666303.
 - Contact a Concrete Pipe Division representative for further details not listed on this drawing.

NOTE:
THE STORMCEPTOR STRUCTURE MUST BE FABRICATED AS PER SHOP DRAWINGS THAT HAVE BEEN APPROVED BY WAYNE COUNTY. THE MANUFACTURER MUST CONTACT WAYNE COUNTY TESTING OFFICE AT (734) 595-6504 x2015 AT LEAST 3 WORKING DAYS PRIOR TO FABRICATION TO SCHEDULE INSPECTION DURING FABRICATION.

10. Installation
The installation of the concrete Stormceptor should conform in general to state highway, or local specifications for the installation of manholes. Selected sections of a general specification that are applicable are summarized in the following sections.

10.1. Excavation
Excavation for the installation of the Stormceptor should conform to state highway, or local specifications. Topsoil removed during the excavation for the Stormceptor should be stockpiled in designated areas and should not be mixed with subsoil or other materials. Topsoil stockpiles and the general site preparation for the installation of the Stormceptor should conform to state highway or local specifications.

The Stormceptor should not be installed on frozen ground. Excavation should extend a minimum of 12 inches (300 mm) from the precast concrete surfaces plus an allowance for shoring and bracing where required. If the bottom of the excavation provides an unsuitable foundation additional excavation may be required.

In areas with a high water table, continuous dewatering may be required to ensure that the excavation is stable and free of water.

10.2. Backfilling
Backfill material should conform to state highway or local specifications. Backfill material should be placed in uniform layers not exceeding 12 inches (300mm) in depth and compacted to state highway or local specifications.

11. Stormceptor Construction Sequence
The concrete Stormceptor is installed in sections in the following sequence:
1. Aggregate base
2. Base slab
3. Lower chamber sections
4. Upper chamber section with fiberglass insert
5. Connect inlet and outlet pipes
6. Assembly of fiberglass insert components (drop tee, riser pipe, oil cleanout port and orifice plate)
7. Remainder of upper chamber
8. Frame and access cover

The precast base should be placed level at the specified grade. The entire base should be in contact with the underlying compacted granular material. Subsequent sections, complete with joint seals, should be installed in accordance with the precast concrete manufacturer's recommendations.

Adjustment of the Stormceptor can be performed by lifting the upper sections free of the excavated area, re-leveling the base and re-installing the sections. Damaged sections and gaskets should be repaired or replaced as necessary. Once the Stormceptor has been constructed, any lift holes must be plugged with mortar.

12. Maintenance
12.1. Health and Safety
The Stormceptor System has been designed considering safety first. It is recommended that confined space entry protocols be followed if entry to the unit is required. In addition, the fiberglass insert has the following health and safety features:

- Designed to withstand the weight of personnel
- A safety grate is located over the 24 inch (600 mm) riser pipe opening
- Ladder rungs can be provided for entry into the unit, if required

12.2. Maintenance Procedures
Maintenance of the Stormceptor system is performed using vacuum trucks. No entry into the unit is required for maintenance (in most cases). The vacuum service industry is a well established sector of the service industry that cleans underground tanks, sewers and catch basins. Costs to clean a Stormceptor will vary based on the size of unit and transportation distances.

The need for maintenance can be determined easily by inspecting the unit from the surface. The depth of oil in the unit can be determined by inserting a dipstick in the oil inspection/cleanout port.

Similarly, the depth of sediment can be measured from the surface without entry into the Stormceptor via a dipstick tube equipped with a ball valve. This tube would be inserted through the riser pipe. Maintenance should be performed once the sediment depth exceeds the guideline values provided in the Table 4.

Table 4. Sediment Depths indicating required servicing.

Model	Sediment Depth inches (mm)
450I	8 (200)
900	8 (200)
1200	10 (250)
1800	15 (381)
2400	12 (300)
3600	17 (430)
4800	15 (380)
6000	18 (460)
7200	15 (381)
11000	17 (380)
13000	20 (500)
16000	17 (380)

* based on 15% of the Stormceptor unit's total storage

Although annual servicing is recommended, the frequency of maintenance may need to be increased or reduced based on local conditions (i.e. if the unit is filling up with sediment more quickly than projected, maintenance may be required semi-annually; conversely once the site has stabilized maintenance may only be required every two or three years).

Oil is removed through the oil inspection/cleanout port and sediment is removed through the riser pipe. Alternatively oil could be removed from the 24 inches (600 mm) opening if water is removed from the lower chamber to lower the oil level below the drop pipes.

The following procedures should be taken when cleaning out Stormceptor:

- Check for oil through the oil cleanout port
- Remove any oil separately using a small portable pump
- Decant the water from the unit to the sanitary sewer, if permitted by the local regulating authority, or into a separate containment tank
- Remove the sludge from the bottom of the unit using the vacuum truck
- Re-fill Stormceptor with water where required by the local jurisdiction

12.3. Submerged Stormceptor
Careful attention should be paid to maintenance of the Submerged Stormceptor System. In cases where the storm drain system is submerged, there is a requirement to plug both the inlet and outlet pipes to economically clean out the unit.

12.4. Hydrocarbon Spills
The Stormceptor is often installed in areas where the potential for spills is great. The Stormceptor System should be cleaned immediately after a spill occurs by a licensed liquid waste hauler.

12.5. Disposal
Requirements for the disposal of material from the Stormceptor System are similar to that of any other stormwater Best Management Practice (BMP) where permitted. Disposal options for the sediment may range from disposal in a sanitary trunk sewer upstream of a sewage treatment plant, to disposal in a sanitary landfill site. Petroleum waste products collected in the Stormceptor (free oil/chemical/fuel spills) should be removed by a licensed waste management company.

12.6. Oil Sheens
With a steady influx of water with high concentrations of oil, a sheen may be noticeable at the Stormceptor outlet. This may occur because a rainbow or sheen can be seen at very small oil concentrations (<10 mg/L). Stormceptor will remove over 98% of all free oil spills from storm sewer systems for dry weather or frequently occurring runoff events.

The appearance of a sheen at the outlet with high influent oil concentrations does not mean the unit is not working to this level of removal. In addition, if the influent oil is emulsified the Stormceptor will not be able to remove it. The Stormceptor is designed for free oil removal and not emulsified conditions.

ISSUED FOR BID	07/30/18
CONTRACT DATE:	XX.XX.XX
BUILDING TYPE:	T40M-O
PLAN VERSION:	JAN 18
SITE NUMBER:	312720/446548
STORE NUMBER:	2017088.72

TACO BELL
20779 13 MILE RD.
WESTLAND, MI



MODERN EXPLORER
T40 - OPEN KITCHEN

OUTLET STRUCTURE DETAILS

C-145

SC-740 ISOLATOR ROW DETAIL
NTS

TACO BELL	WESTLAND, MI
DATE: 05-18-18	DRAWN: SMO
PROJECT #: 508645	CHECKED: CLD

REV	DATE	DESCRIPTION

StormTech
1460 TRUMAN BLVD
HILLIARD, OH 43026
888-892-2894

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT

A. INSPECTION PORTS (IF PRESENT)

A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN

A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED

A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG

A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECT ON OF SEDIMENT LEVELS (OPTIONAL)

A.5. IF SEDIMENT IS AT OR ABOVE 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

B. ALL ISOLATOR ROWS

B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW

B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE

i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY

ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE

B.3. IF SEDIMENT IS AT OR ABOVE 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS

A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED

B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN

C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

SC-740 6" INSPECTION PORT DETAIL
NTS

UNDERDRAIN DETAIL
NTS

SC-740 TECHNICAL SPECIFICATION
NTS

NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4" (1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET (1.30 m ³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET (2.12 m ³)
WEIGHT	75.0 lbs. (33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS

PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
PRE-CORED END CAPS END WITH "PC"

PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EPE08B / SC740EPE08BPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	0.5" (13 mm)
SC740EPE08T / SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EPE10B / SC740EPE10BPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE12B / SC740EPE12BPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	1.2" (30 mm)
SC740EPE17 / SC740EPE17PC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EPE18B / SC740EPE18BPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE24B*	24" (600 mm)	18.5" (470 mm)	---	1.6" (41 mm)

ALL STUBS, EXCEPT FOR THE SC740EPE24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2894.

* FOR THE SC740EPE24B THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

TACO BELL	WESTLAND, MI
DATE: 05-18-18	DRAWN: SMO
PROJECT #: 508645	CHECKED: CLD

REV	DATE	DESCRIPTION

StormTech
1460 TRUMAN BLVD
HILLIARD, OH 43026
888-892-2894

DS
DESIGN SERVICES

5 SHEET OF 5

ISSUED FOR BID 07/30/18

CONTRACT DATE: XX.XX.XX

BUILDING TYPE: T40M-O

PLAN VERSION: JAN 18

SITE NUMBER: 312720/446548

STORE NUMBER: 2017088.72

TACO BELL
20779 13 MILE RD.
WESTLAND, MI

MODERN EXPLORER
T40 - OPEN KITCHEN

STORMTECH
DETAILS

C-147

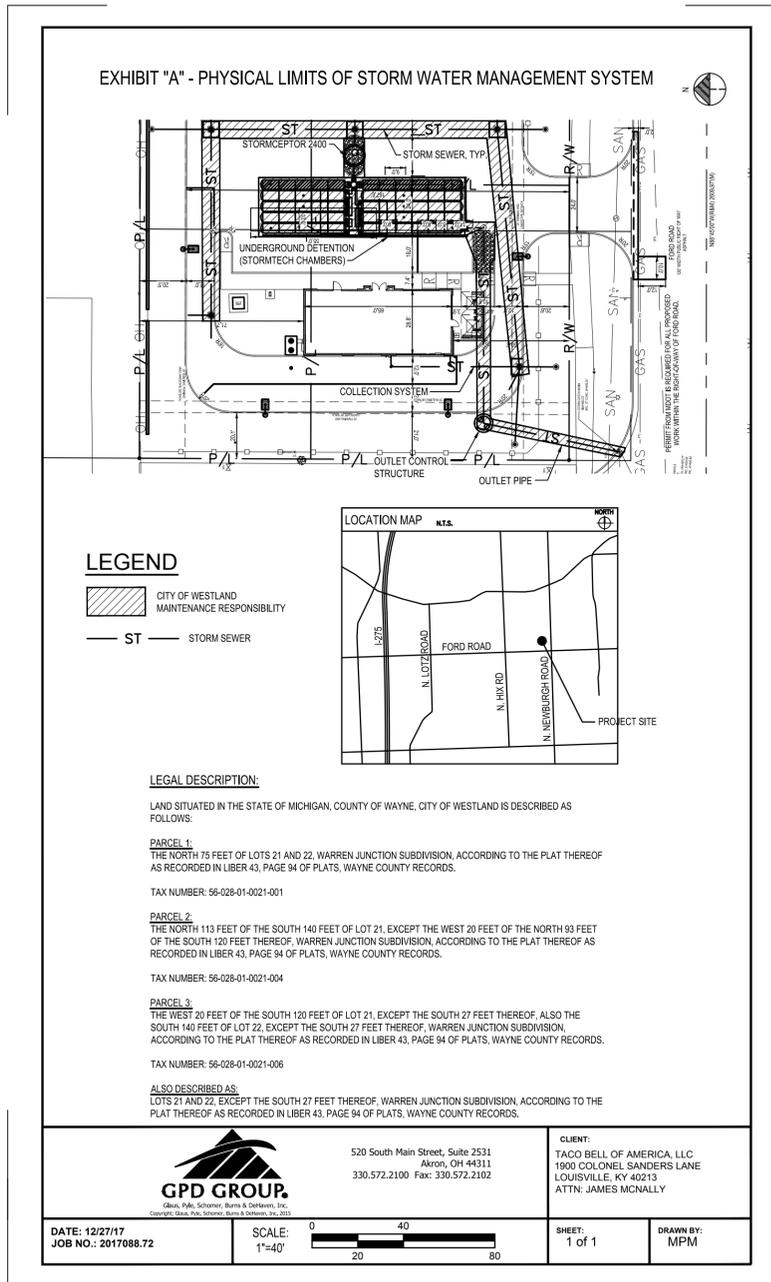


EXHIBIT "B" - STORM WATER MANAGEMENT SYSTEM LONG-TERM MAINTENANCE PLAN

Wayne County DPS Permit No.: M -

Wayne County DPS Plan review No.: R18-061

A. Physical Limits of the Storm Water Management System

The storm water management system (SWMS) subject to this long-term maintenance plan (Plan) is depicted on Exhibit A to the permit and includes without limitation the storm sewers, swales, catch basins, manholes, inlets, manufactured treatment system, underground detention system, flow restrictor structure and outlet pipe that conveys flow from the underground detention system to an existing storm system within the public highway of Ford Road that outlets to a County Drain. For the purposes of this plan, this SWMS and all of its components as shown in Exhibit A is referred to as "Taco Bell's SWMS".

B. Time Frame for Long-Term Maintenance Responsibility

Taco Bell of America, LLC is responsible for maintaining the Taco Bell's SWMS including complying with applicable requirements of the local or Wayne County soil erosion and sedimentation control program until Wayne County releases the construction permit. Long-term maintenance responsibility for Taco Bell's SWMS commences when defined by the maintenance permit issued by the County. Long-term maintenance continues in perpetuity.

C. Manner of Insuring Maintenance Responsibility

The City of Westland has assumed responsibility for long-term maintenance of Taco Bell's SWMS. The resolution by which The City of Westland has assumed maintenance responsibility is attached to the permit as Exhibit C. Taco Bell of America, LLC., through a maintenance agreement with the City of Westland, has agreed to perform the maintenance activities required by this plan. The City of Westland retains the right to enter the property and perform the necessary maintenance of the Taco Bell's SWMS if Taco Bell of America, LLC. fails to perform the required maintenance activities.

To ensure that the Taco Bell's SWMS is maintained in perpetuity, the map of the physical limits of the storm water management system (Exhibit A), this plan (Exhibit B), the resolution attached as Exhibit C, and the maintenance agreement between the City of Westland and the property owner will be recorded with the Wayne County Register of Deeds. Upon recording, a copy of the recorded documents will be provided to the County.

D. Long-Term Maintenance Plan and Schedule

Table 1 identifies the maintenance activities to be performed, organized by category (monitoring/inspections, preventative maintenance and remedial actions). Table 1 also identifies site-specific work needed to ensure that the storm water management system functions properly as designed.

TABLE 1 STORM WATER MANAGEMENT SYSTEM LONG-TERM MAINTENANCE SCHEDULE						
MAINTENANCE ACTIVITIES	Storm Collection System (Sewers, Swales, Catch Basins, Manholes)	Manufactured Treatment System	Underground Detention System	Flow Restrictor Structure & Outlet Pipe	Pavement Areas	FREQUENCY
Monitoring/Inspection						
Inspect for Sediment Accumulation/Clogging	X	X	X	X	X	Annually
Inspect For Floatables, Dead Vegetation & Debris	X	X	X	X	X	Annually & After Major Events
Inspect For Erosion And Integrity of System	X				X	Annually & After Major Events
Inspect All Components During Wet weather & Compare to As-Built Plans	X	X	X	X	X	Annually
Ensure Maintenance Access Remain Open/Clear	X	X	X	X	X	Annually
Preventative Maintenance						
Remove Accumulated sediments	X	X	X	X	X	As Needed (See Note Below)
Remove Floatables, Dead Vegetation & Debris	X				X	As Needed
Sweeping of Paved Surfaces					X	As Needed
Remedial Actions						
Repair/Stabilize Areas of Erosion	X				X	As Needed
Replace Dead Plantings & Reseed Bare Areas	X					As needed
Structural Repairs	X	X	X	X	X	As Needed
Make Adjustments/Repairs to Ensure Proper Functioning	X	X	X	X	X	As Needed
NOTE: Manufactured treatment system and underground detention system to be cleaned according to the manufacturer's recommendations; at a minimum, whenever sediments accumulate to a depth of 6-12 inches, or if sediment resuspension is observed.						
PROJECT: Taco Bell 37500 Ford Road Westland, MI, 48185	LESSEE (RESPONSIBLE PARTY): Taco Bell of America, LLC 1900 Colonel Sanders Lane Louisville, KY 40213 Attn: TBD Phone: (502) 874-8300		ENGINEER: GPD Group 520 South Main St, Suite 2531 Akron, OH 44311 Phone: (330) 572-2100	DATE: 5/9/2018		
				SHEET 1 OF 1		

ISSUED FOR BID	07/30/18
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CONTRACT DATE: XX.XX.XX
 BUILDING TYPE: T40M-O
 PLAN VERSION: JAN 18
 SITE NUMBER: 312720/446548
 STORE NUMBER: 2017088.72

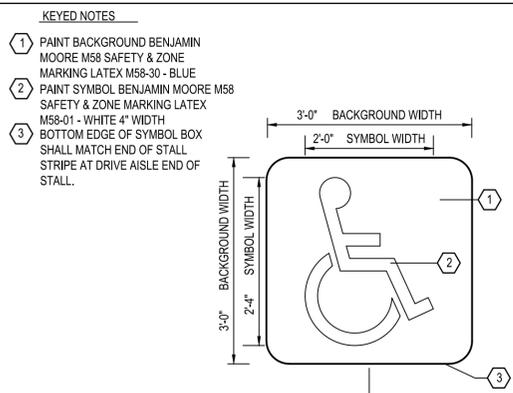
TACO BELL
 20779 13 MILE RD.
 WESTLAND, MI



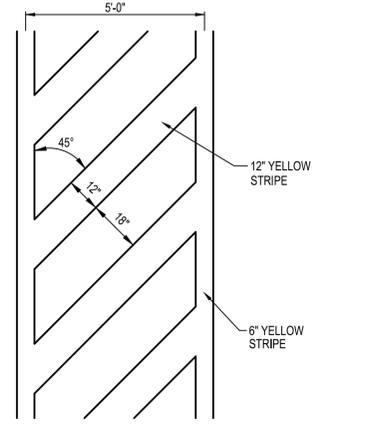
MODERN EXPLORER
 T40 - OPEN KITCHEN

STORMWATER EXHIBITS

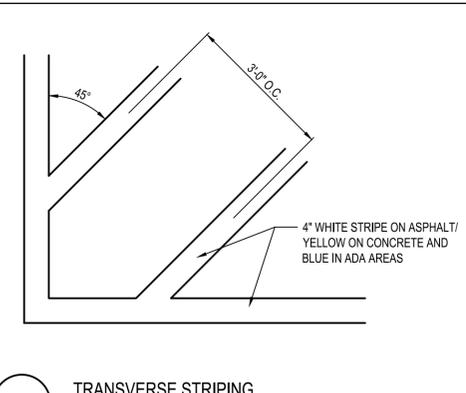
C-148



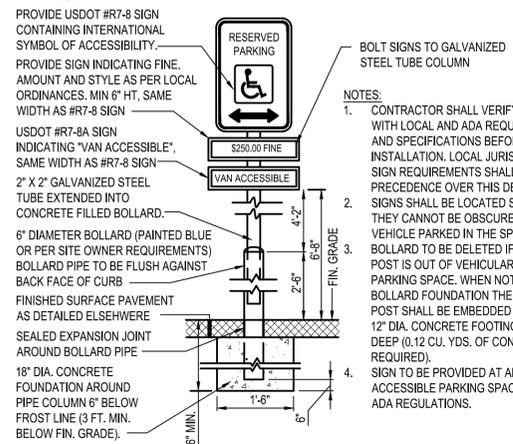
D2 INTERNATIONAL ADA SYMBOL
N.T.S.



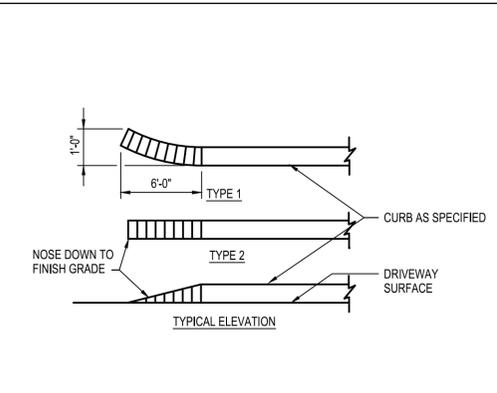
C2 CROSSWALK STRIPING
N.T.S.



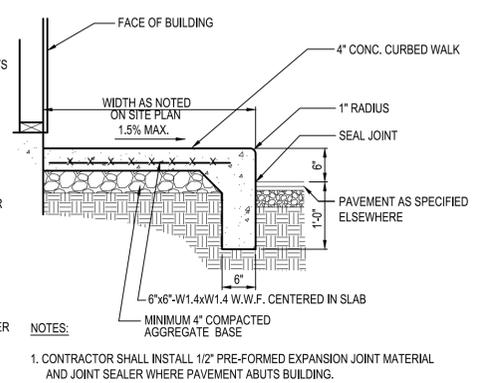
D3 TRANSVERSE STRIPING
N.T.S.



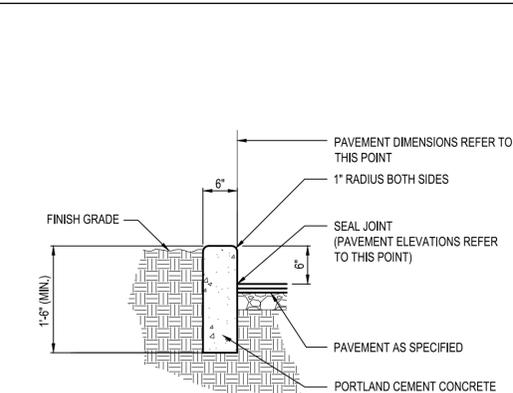
C3 ADA PARKING SIGN
N.T.S.



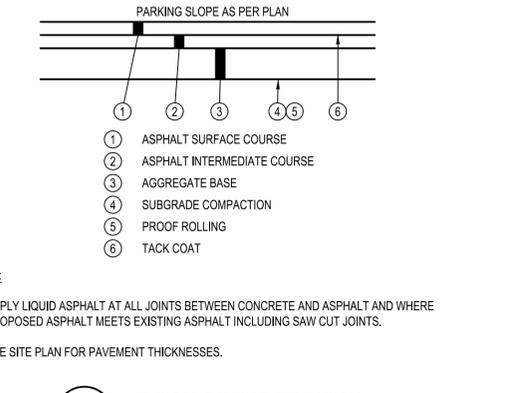
D4 6' CURB TAPER
N.T.S.



C4 P.C.C. CURBED WALK
N.T.S.



D5 P.C.C. CURB
N.T.S.



D4 TYPICAL PAVEMENT SECTION
N.T.S.

NOTES:

ALL PAVEMENT MARKINGS TO BE WHITE PAVEMENT PAINT, UNLESS STATED OTHERWISE.

MARKING (STRIPING) PAINT FOR PARKING SPACES, TRAFFIC ARROWS, ADA PARKING AND SYMBOLS, ETC., PER LOCAL REQUIREMENTS AND AS FOLLOWS:

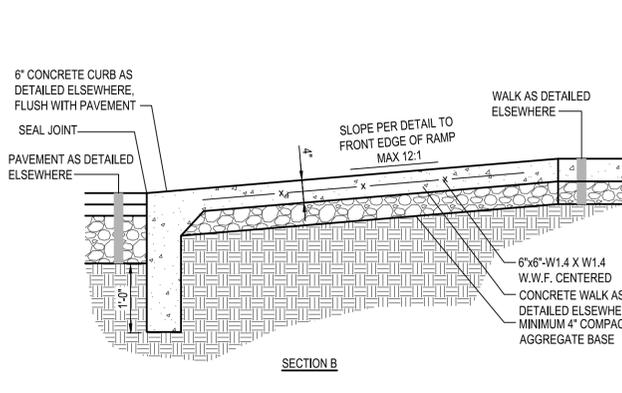
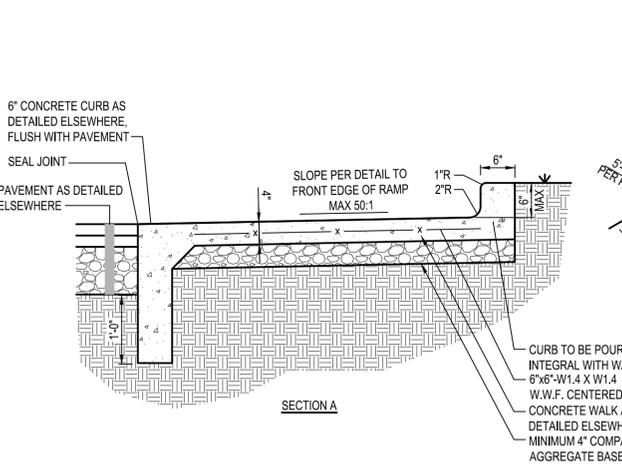
EXISTING SURFACES WITHOUT ANY SEAL COATING: OIL BASE (ALKYD RESIN TYPE TO MEET FEDERAL SPECIFICATION TTP-1952.

NEW OR EXISTING SURFACES WITH A TOP COATING OR SEAL COATING (USUALLY WATER BASE FAST DRYING 100% ACRYLIC TYPE): WATER BASE TYPE TO MEET FEDERAL SPECIFICATION TTP-01952. FOR COLD WEATHER APPLICATION PAINT PRODUCT SHALL BE IN ACCORDANCE WITH ASTM-D2369, D1394, D3723, D1475, D562, AND D711

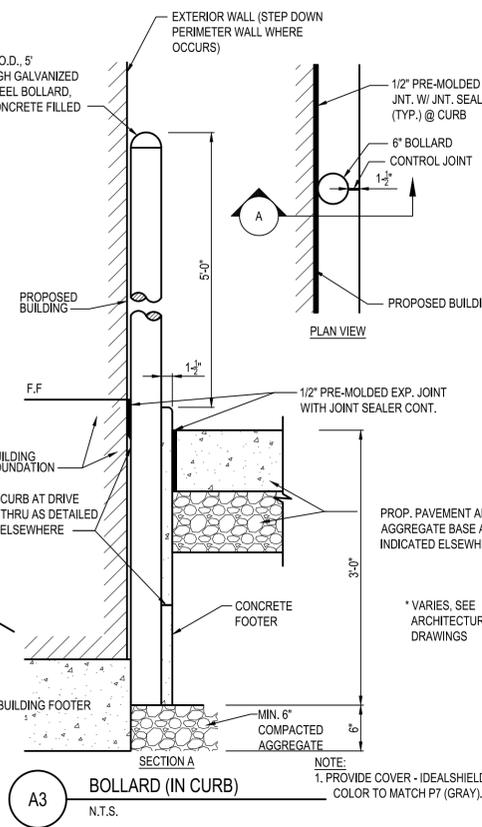
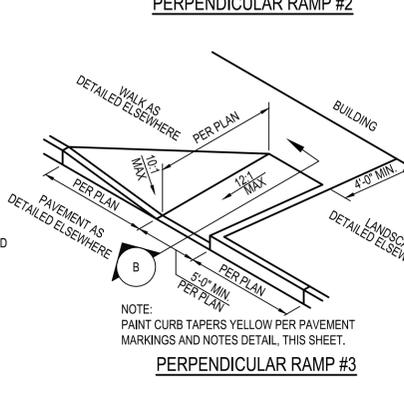
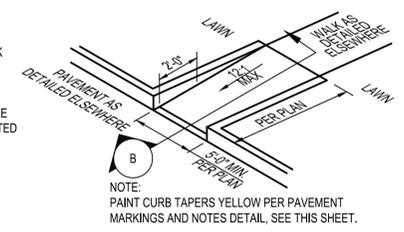
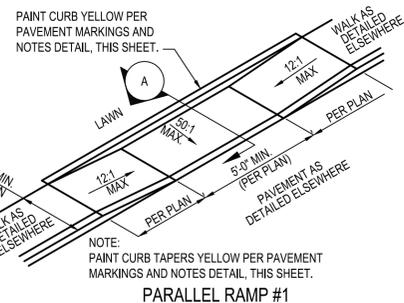
PROVIDE A NON-SLIP AGGREGATE ADDITIVE TO MARKING PAINT USED AT ADA ACCESS RAMP.

APPLY 2 COATS WITH STRAIGHT EDGES, YELLOW ON CONCRETE/WHITE ON ASPHALT EXCEPT WHEN MATCHING ADJACENT OR EXISTING COLOR WHEN THE PAVING IS AN EXPANSION OR SEGMENT OF A LARGER LOT.

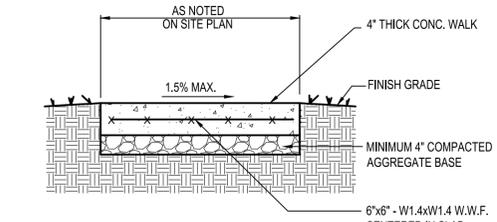
C1 PAVEMENT MARKINGS & NOTES
N.T.S.



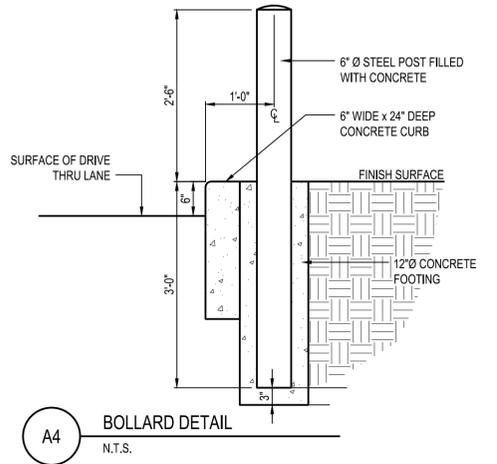
A1 ADA ACCESSIBLE RAMP
N.T.S.



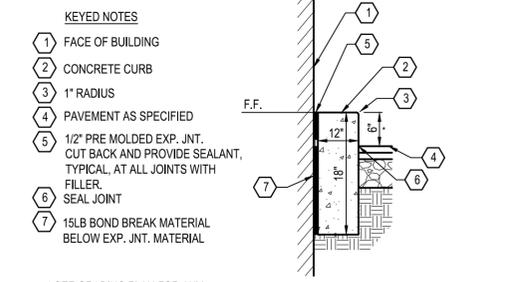
A3 BOLLARD (IN CURB)
N.T.S.



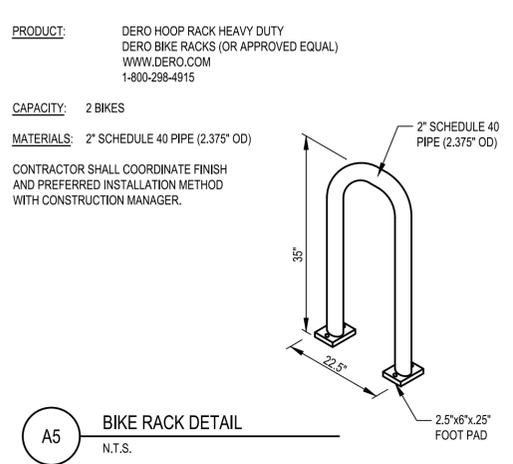
B4 P.C.C. WALK
N.T.S.



A4 BOLLARD DETAIL
N.T.S.



B5 CURB AT DRIVE THRU
N.T.S.



A5 BIKE RACK DETAIL
N.T.S.

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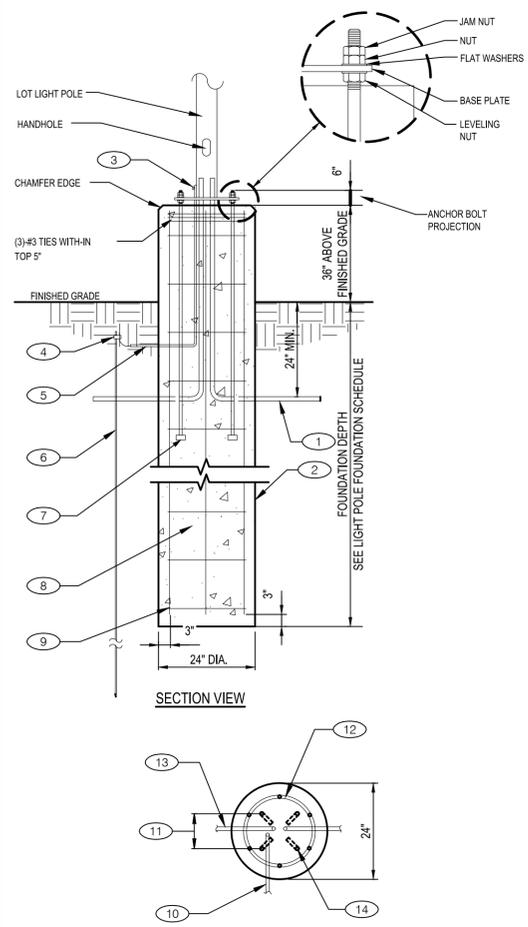
TACO BELL
20779 13 MILE RD.
WESTLAND, MI



MODERN EXPLORER
T40 - OPEN KITCHEN

DETAILS

C-501



- KEY NOTES**
- 1" CONDUIT OR AS NOTED, EXTEND 3/4" MAX. ABOVE FOUNDATION. (INSTALL ON MIN. 6" SAND BED WITH MIN. 6" SAND COVER BEFORE BACKFILL. CONDUIT SHALL BE FULL WEIGHT SCHEDULE 40 PVC)
 - FOUNDED CONCRETE BASE BY G.C. (24" DIA.) (3,000 PSI, CLASS 1" CONCRETE)
 - PROVIDE GROUND LUG IN BASE BOLTED TO BASE PLATE. GROUND SHALL BE MIN. #6 BARE WIRE.
 - T & B #3 GND. CLAMP
 - 12" EMT OR PVC CONDUIT FOR GROUND WIRE
 - GROUNDING ROD.
 - (4) 4'-0" LONG HEADED ANCHOR RODS. COORDINATE ANCHOR ROD DIAMETER W/ POLE SUPPLIER, FURNISHED BY LOT LIGHTING SUPPLIER & INSTALLED BY G.C.
 - #3 TIES SPACED @ 12" O.C.
 - (6)#5 VERTICAL REBARS
 - CONDUIT STUB OUT FOR GROUND WIRE CONNECTION
 - BOLT PATTERN BY LOT LIGHTING SUPPLIER
 - REBAR CAGE
 - CONDUIT STUB OUT
 - ANCHOR BOLTS

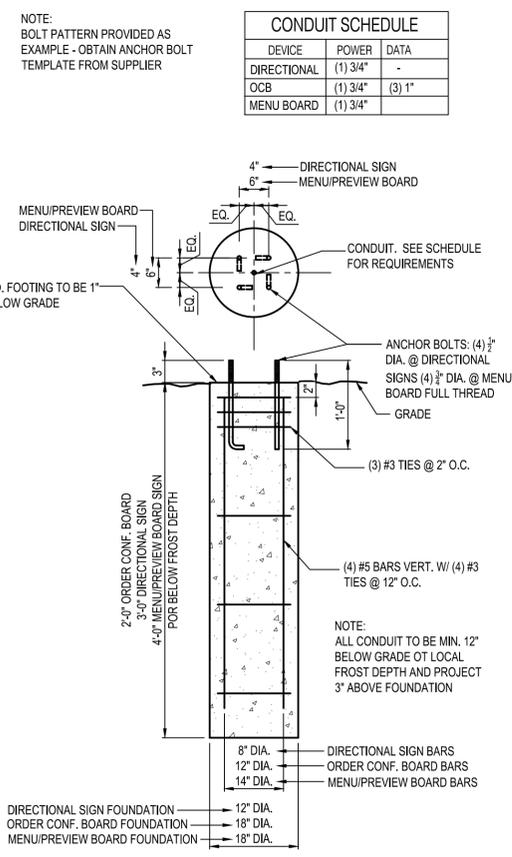
LIGHT POLE FOUNDATION SCHEDULE

BASIC WIND SPEED (MPH) (ASCE 7-05)	FOUNDATION DEPTH
90 - 100	6'-0"
101 - 120	7'-0"
121 - 140	8'-0"

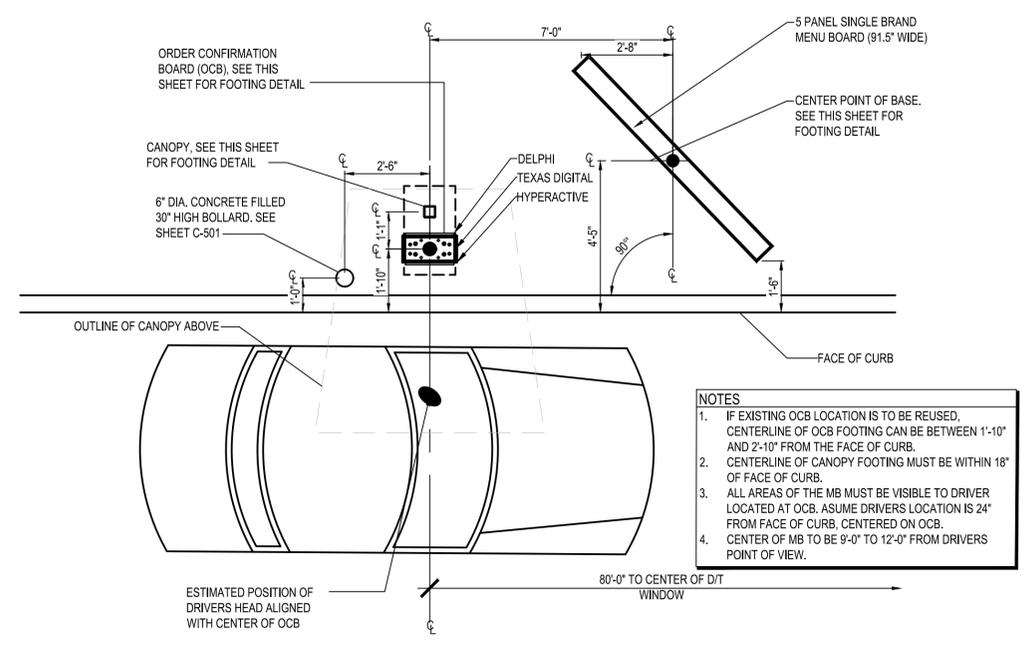
NOTES

- WIND LOADS ARE BASED ON EXPOSURE C.
- MAX. POLE HEIGHT = 25' MAX (POLE LENGTH) + 3' (FOUNDATION HEIGHT ABOVE GRADE) = 28' MAX.
- FOUNDATION DESIGN IS BASED ON A MAX. LUMINARY EFFECTIVE PROJECTED AREA (EPA) OF 4.0 S.F.
- LIGHT POLES SHALL MEET FOR ASCE 7-05 ASD DESIGN WIND SPEEDS PROVIDED IN STRUCTURAL PLANS.
- ALL REINFORCING STEEL SHALL DEFORMED BARS CONFORMING TO ASTM A-615 GRADE 60.
- CONCRETE ABOVE FINISH GRADE TO BE SMOOTH WITH RUBBED FINISH.
- MINIMUM REQUIRED SOIL PARAMETERS:
- ALLOWABLE LATERAL PASSIVE PRESSURE = 250 PL/FT
- 6" MAX. DEPTH OF DISTURBED TOP SOIL
- WATER TABLE SHALL BE LOCATED BELOW THE BOTTOM OF FOUNDATION.

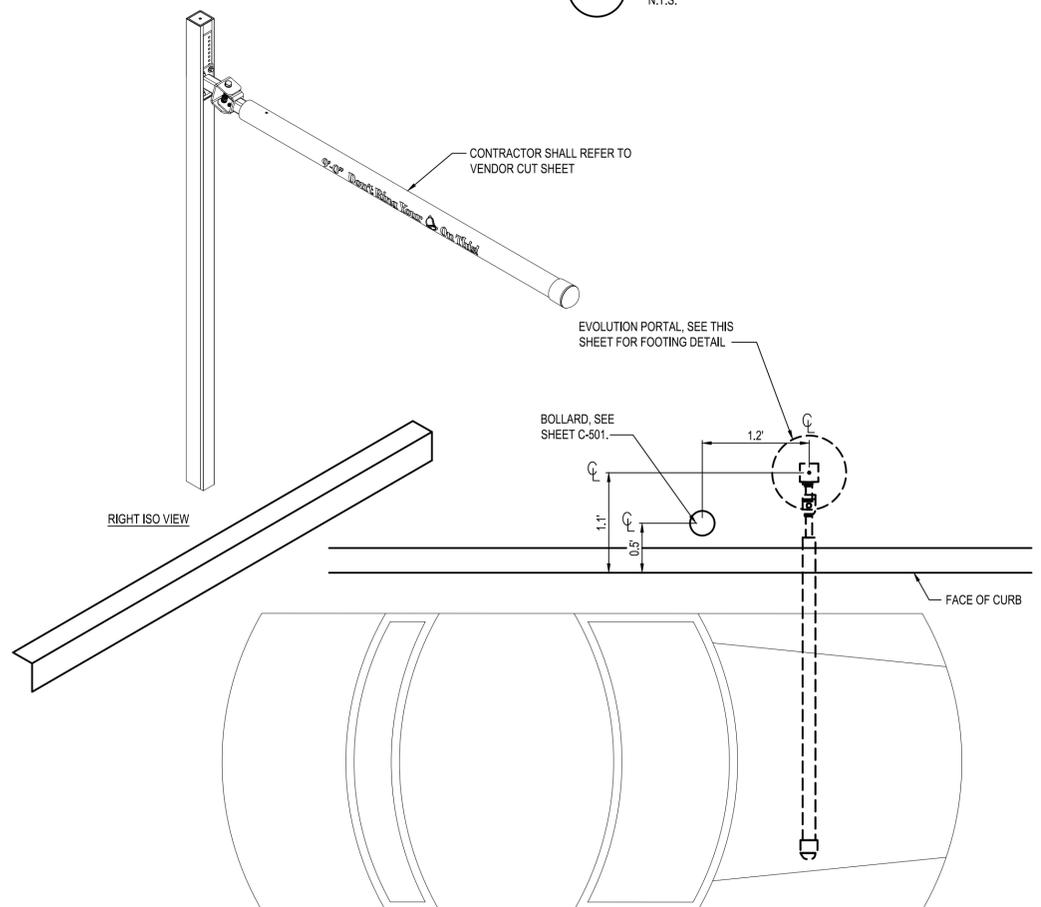
A1 LIGHT POLE FOUNDATION DETAIL
N.T.S.



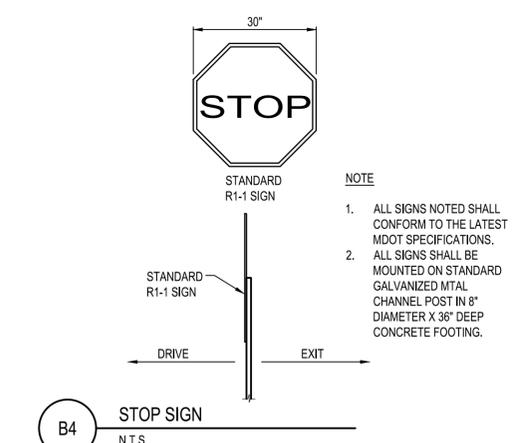
C3 MENU BOARD FOOTING DETAIL
N.T.S.



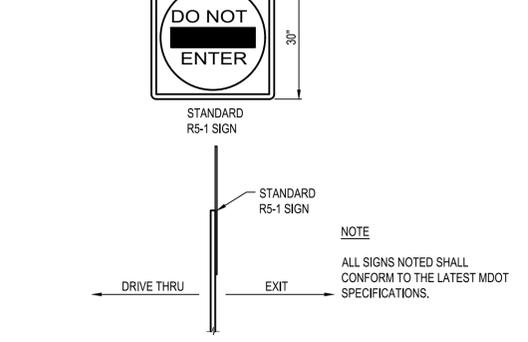
C4 ENLARGED MENU BOARD DETAIL @ STRAIGHT CURB
N.T.S.



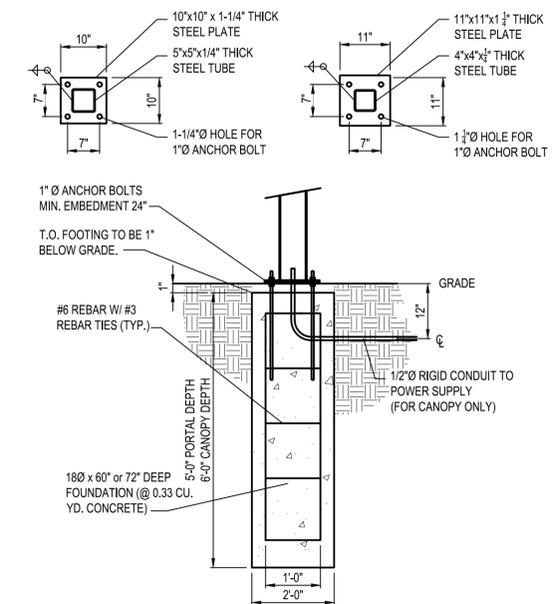
A2 PORTAL PLACEMENT DETAIL
N.T.S.



B4 STOP SIGN
N.T.S.



A4 DO NOT ENTER SIGN
N.T.S.



A5 EVOLUTION FOUNDATION DETAIL
N.T.S.

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SITE NUMBER: 312720/446548
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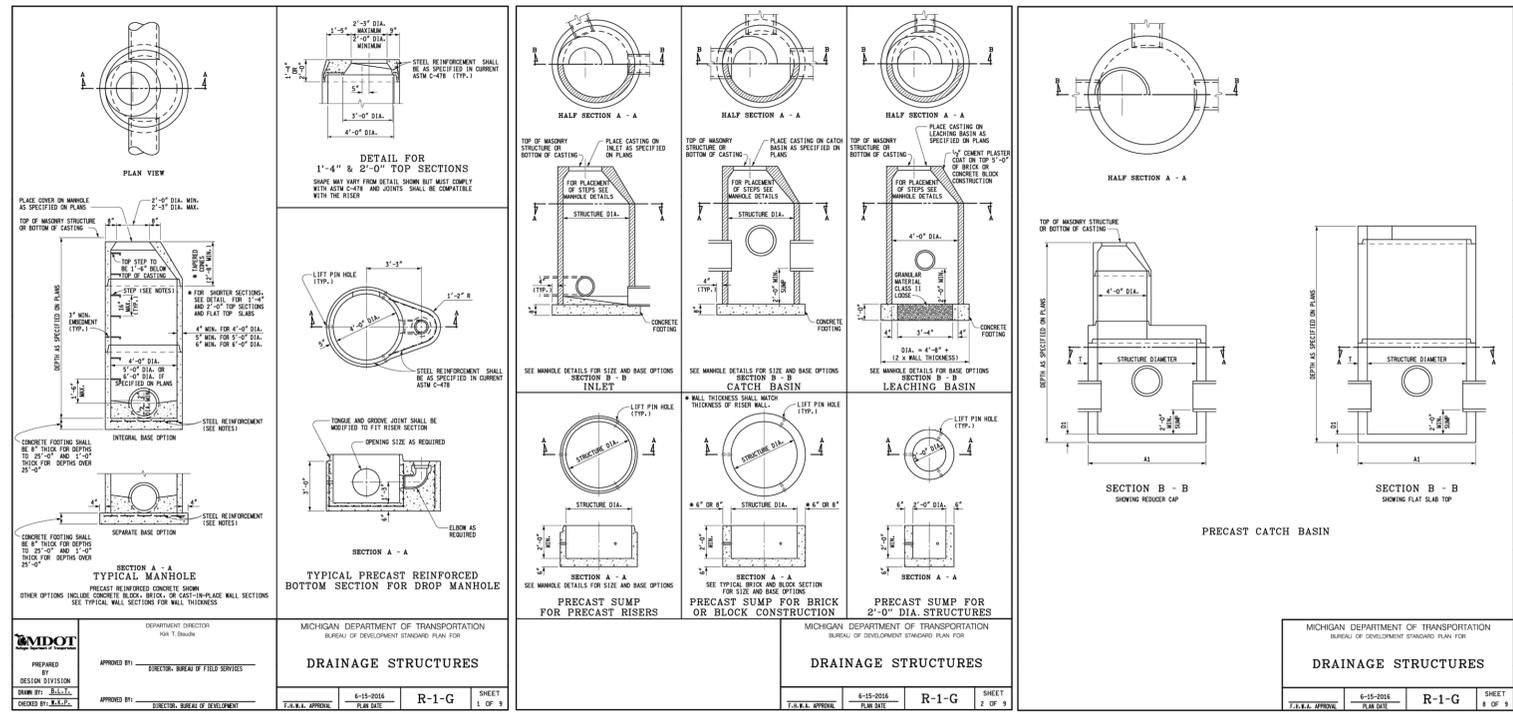
TACO BELL
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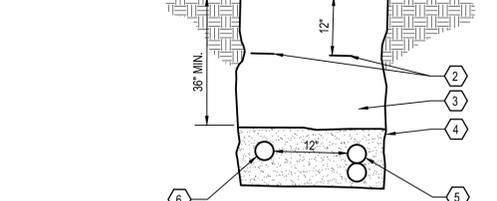
MODERN EXPLORER
T40 - OPEN KITCHEN

DETAILS

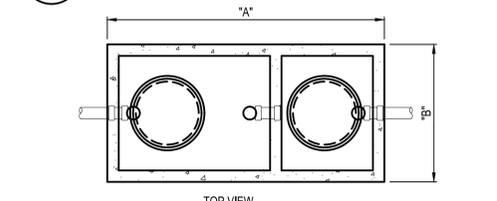
C-502



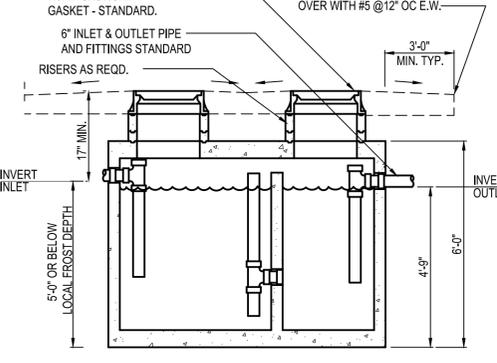
- KEYED NOTES**
- 1 TOPSOIL & SOD, OR PAVEMENT AS DETAILED ELSEWHERE.
 - 2 CONTINUOUS METALLIC WARNING TAPE
 - 3 CLEAN SELECT GRANULAR BACKFILL
 - 4 6\"/>



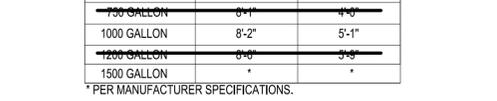
D4 ELECTRICAL & COMMUNICATIONS SERVICE TRENCH
N.T.S.



D5 FINGER DRAIN DETAIL
N.T.S.



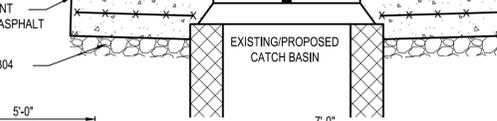
D6 WYE CONNECTION
N.T.S.



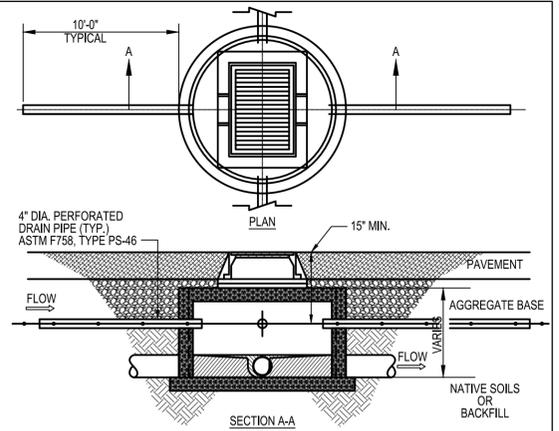
D7 WATER SERVICE TAP
N.T.S.



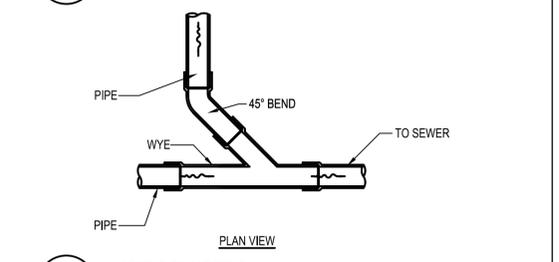
D8 EXTERIOR GREASE INTERCEPTOR
N.T.S.



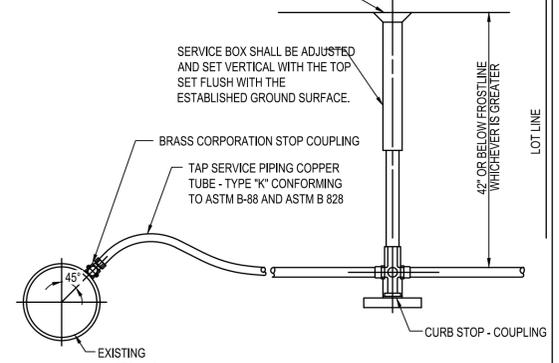
D9 CONCRETE COLLAR
N.T.S.



D10 FINGER DRAIN DETAIL
N.T.S.



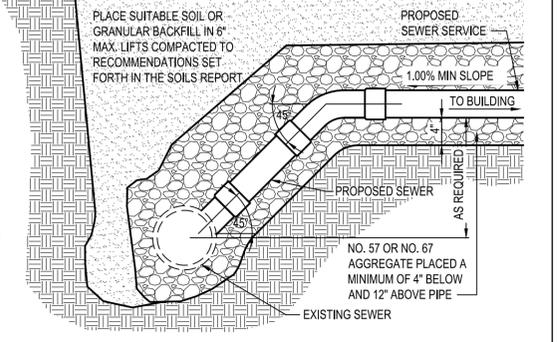
D11 WYE CONNECTION
N.T.S.



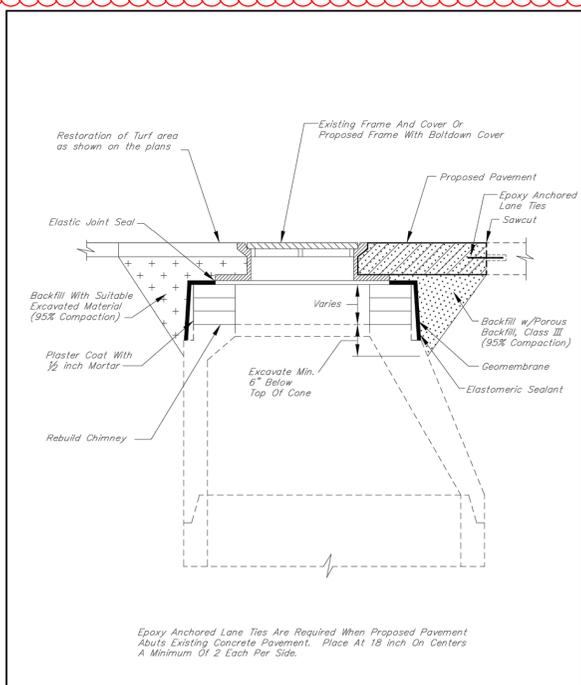
D12 WATER SERVICE TAP
N.T.S.



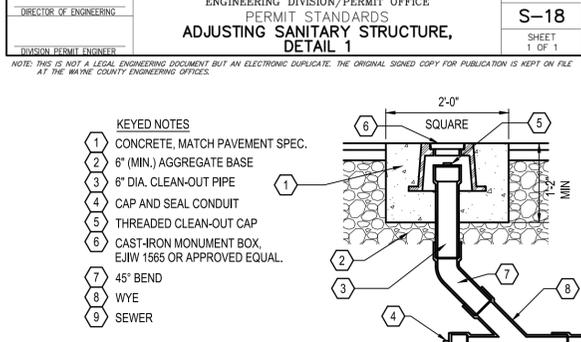
D13 EXTERIOR GREASE INTERCEPTOR
N.T.S.



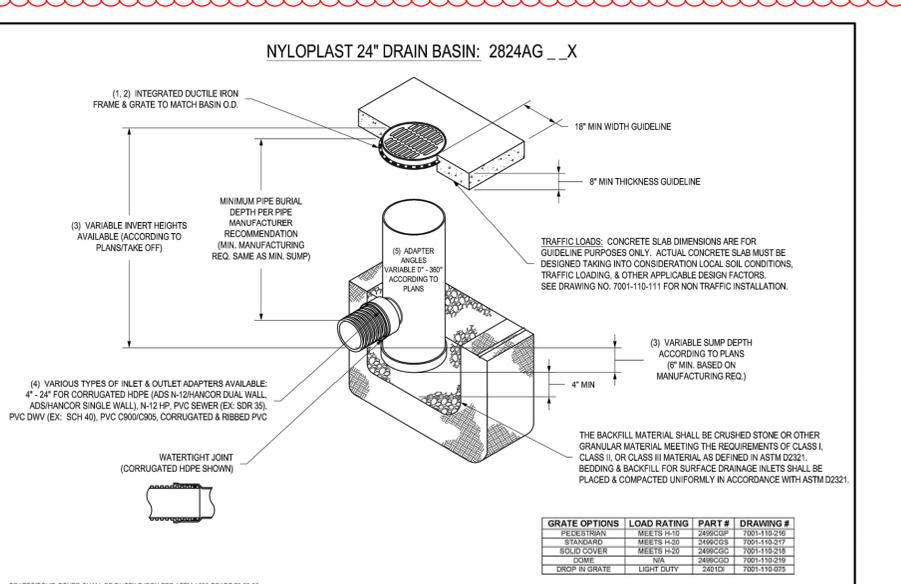
D14 SEWER RISER (TAP)
N.T.S.



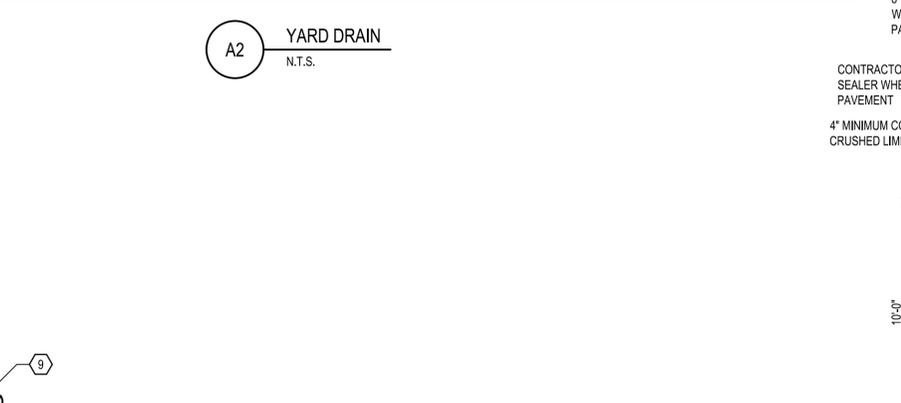
A1 CLEAN OUT (PAVEMENT AREA)
N.T.S.



A2 YARD DRAIN
N.T.S.



A3 NYLOPLAST 24\"/>



A4 CONCRETE COLLAR
N.T.S.

- KEYED NOTES**
- 1 CONCRETE, MATCH PAVEMENT SPEC.
 - 2 6\"/>

G.T. SIZE	DIM. "A"	DIM. "B"
500 GALLON	8'-2"	4'-2"
750 GALLON	8'-1"	4'-0"
1000 GALLON	8'-2"	5'-1"
1250 GALLON	8'-0"	3'-8"
1500 GALLON	*	3'-8"

* PER MANUFACTURER SPECIFICATIONS.
GC SHALL INSTALL GREASE INTERCEPTOR (G.I.) AS APPROVED BY LOCAL WASTEWATER JURISDICTION. INSTALLATION SHALL INCLUDE VENT, SAMPLING PORT/ MANHOLE, REINF. CONCRETE TRAFFIC LID, ETC. AS REQUIRED PER WASTEWATER DEPARTMENT STANDARDS. G.I. SHALL BE DESIGNED FOR H20 VEHICLE LOADS.

ISSUED FOR BID	07/30/18
CONTRACT DATE:	XX.XX.XX
BUILDING TYPE:	T40M-O
PLAN VERSION:	JAN 18
SITE NUMBER:	312720/446548
STORE NUMBER:	2017088.72

TACO BELL
20779 13 MILE RD.
WESTLAND, MI



MODERN EXPLORER
T40 - OPEN KITCHEN

DETAILS

C-503

LANDSCAPE NOTES & PLANTING SPECIFICATIONS

SCOPE OF WORK

- THIS WORK SHALL CONSIST OF PERFORMING CLEARING AND GRUBBING, SOIL PREPARATION, FINISH GRADING, PLANTING AND DRAINAGE, INCLUDING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT.
- QUANTITY TAKEOFF IS SUPPLIED FOR CONTRACTOR'S ASSISTANCE ONLY. CONTRACTOR IS RESPONSIBLE FOR SUPPLYING ALL PLANT MATERIALS AS PER PLAN.
- NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR WITHIN EASEMENT OR RIGHT-OF-WAY LIMITS.

PRESERVATION/PROTECTION (IF APPLICABLE)

- CONTRACTOR SHALL MAINTAIN AND PRESERVE TREES AND SHRUBS NOT BEING REMOVED, INCLUDING THEIR ROOTS. TREE PROTECTION FENCING SHALL BE USED AT THE DRIP LINE OF ALL TREES AND SHRUBS WITHIN 50 FEET OF CONSTRUCTION EXCEPT AS SHOWN ON PLAN. FENCING SHALL REMAIN IN PLACE UNTIL FINAL PLANT INSPECTION FOLLOWING CONSTRUCTION. MATERIALS SHALL NOT BE STOCKPILED WITHIN THIS DEFINED AREA AND VEHICLES AND OTHER EQUIPMENT SHALL BE OPERATED TO AVOID SOIL COMPACTION.
- FEEDER ROOTS SHOULD NOT BE CUT IN AN AREA EQUAL TO TWICE THE TREE CIRCUMFERENCE (MEASURED 6" ABOVE THE GROUND LINE IN INCHES) EXPRESSED IN FEET. (EXAMPLE: A CIRCUMFERENCE OF 10" WOULD HAVE A 'NO CUT' ZONE OF 20 FEET IN ALL DIRECTIONS FROM THE TREE). THIS SHOULD APPLY TO UTILITY SERVICES, IF FEASIBLE. THE ONLY EXCEPTION TO THIS REQUIREMENT WILL BE THOSE SPECIFICALLY ALLOWED BY THE LANDSCAPE ARCHITECT, SPECIFICATIONS OR AS INDICATION ON THE PLANS.
- TREE TRUNKS AND EXPOSED ROOTS DAMAGED DURING EQUIPMENT OPERATIONS SHALL BE TREATED IN ACCORDANCE WITH THE ARBOR CULTURAL STANDARDS OF THE CITY.

PLANT MATERIALS

- GENERAL - ALL MATERIALS SHALL BE OF ITS KIND AVAILABLE AND SHALL HAVE BEEN GROWN IN A CLIMATE SIMILAR TO THAT ON SITE.
- PLANTS - ALL PLANTS SHALL BE HEALTHY, OF NORMAL GROWTH, WELL ROOTED, FREE FROM DISEASE AND INSECTS. QUALITY AND SIZE OF PLANT MATERIAL SHALL CONFORM TO ANSI Z60.1 "AMERICAN STANDARDS FOR NURSERY STOCK".
- VARIETIES AND SIZES OF PLANTS SHALL BE AS SHOWN ON DRAWINGS.
- PLANTS SHALL BE IN A HEALTHY, VIGOROUS CONDITION, FREE OF DEAD OR BROKEN BRANCHES, SCARS THAT ARE NOT COMPLETELY HEALED, FROST CRACKS, DISFIGURING KNOTS, BROKEN OR ABRADED BARK, REDUNDANT LEADERS OR BRANCHES, OR ABERRATIONS OF ANY KIND. PLANTS SHALL NOT HAVE MULTIPLE LEADERS, UNLESS THIS IS THE NATURAL FORM.
- BALLED AND BURLAPPED (B&B) PLANTS SHALL BE DUG WITH A FIRM ROOT BALL OF NATURAL EARTH, OF A SIZE IN PROPORTION TO THE PLANT'S SIZE, AS MEASURED BY CALIPER, HEIGHT, OR SPREAD. BALLED AND BURLAPPED PLANTS SHALL BE HANDLED ONLY BY THE ROOT BALL, NOT BY THE TRUNK OR BRANCHES, AS THIS MAY BREAK OR LOOSEN THE ROOT BALL AND DAMAGE THE ROOT SYSTEM. CONTAINER PLANTS SHALL HAVE BEEN ESTABLISHED FOR A MINIMUM OF ONE FULL GROWING SEASON IN THEIR CONTAINERS BEFORE INSTALLATION. CONTAINER PLANTS SHALL BE HANDLED ONLY BY THE CONTAINER, NOT BY THE STEMS OR BRANCHES, AS THIS MAY PULL THE PLANT OUT OF THE CONTAINER AND BREAK OR LOOSEN THE ROOT BALL AND DAMAGE THE ROOT SYSTEM.
- PLANTS SHALL BE PROTECTED FROM DRYING OUT DURING SHIPPING WITH TARPULINS OR OTHER COVERINGS. PLANTS SHALL BE PROTECTED FROM DRYING OUT AFTER DELIVERY BY PLANTING IMMEDIATELY; IF THIS IS NOT POSSIBLE, THE ROOT BALL SHALL BE COVERED WITH PEAT MOSS OR EARTH, AND WATERED FREQUENTLY TO KEEP IT MOIST UNTIL PLANTING.
- DO NOT HANDLE, MOVE, BIND, TIE OR OTHERWISE TREAT PLANTS SO AS TO DAMAGE THE ROOT BALL, ROOTS, TRUNK, OR BRANCHES IN ANY WAY.

TOPSOIL

- TOPSOIL HAS BEEN (OR WILL BE) STOCKPILED FOR REUSE IN LANDSCAPE WORK. IF QUANTITY OF STOCKPILED TOPSOIL IS INSUFFICIENT, PROVIDE ADDITIONAL TOPSOIL AS REQUIRED TO COMPLETE LANDSCAPE WORK. IMPORTED TOPSOIL SHALL CONSIST OF LOOSE, FRIABLE, LOAMY TOPSOIL WITHOUT ADMIXTURE OF SUBSOIL OR REFUSE. ACCEPTABLE TOPSOIL SHALL CONTAIN NOT LESS THAN 3 PERCENT NOR MORE THAN 20 PERCENT ORGANIC MATTER.
- PLANTING BACKFILL FOR PARKING LOT ISLANDS SHALL CONSIST OF A HOMOGENEOUS MIXTURE OF 3 PARTS TOPSOIL TO ONE PART SPHAGNUM PEAT INSTALLED OVER A 6" THICKNESS OF NO. 57 AGGREGATE.

SOIL CONDITIONING

- OBTAIN LABORATORY ANALYSIS OF STOCKPILED AND IMPORTED TOPSOIL COMPLETE WITH RECOMMENDATIONS FOR SOIL AMENDMENT.
- BEFORE MIXING, CLEAN TOPSOIL OF ROOTS, PLANTS, SOD, STONES, CLAY LUMPS, AND OTHER EXTRANEUS MATERIALS HARMFUL OR TOXIC TO PLANT GROWTH.
- MIX SPECIFIED SOIL AMENDMENTS AND FERTILIZERS WITH TOPSOIL AT RATES SPECIFIED BY THE LAB REPORT. DELAY MIXING OF FERTILIZER IF PLANTING WILL NOT FOLLOW PLACING OF PLANTING SOIL WITHIN A FEW DAYS.
- FOR PLANTING BEDS AND LAWNS, MIX PLANTING SOIL EITHER PRIOR TO PLANTING OR APPLY ON SURFACE OF TOPSOIL AND MIX THOROUGHLY BEFORE PLANTING. MIX LIME WITH DRY SOIL PRIOR TO MIXING OF FERTILIZER.
- PREVENT LIME FROM CONTACTING ROOTS OF ACID-LOVING PLANTS.
- APPLY PHOSPHORIC ACID FERTILIZER (OTHER THAN THAT CONSTITUTING A PORTION OF COMPLETE FERTILIZERS) DIRECTLY TO SUBGRADE BEFORE APPLYING PLANTING SOIL AND TILLING.

PLANTING SOIL

- PLANTING SOIL MIX SHALL BE CLEAR OF ALL STONES AND DEBRIS 1" OR LARGER, AND CONSIST OF THE FOLLOWING: 25% ORGANIC COMPOST, 75% ACCEPTABLE TOPSOIL.

OTHER MATERIALS

- BED EDGING - EDGING SHALL BE 4" STEEL EDGING WITH THREE (3) METAL ANCHOR STAKES PER 20 FOOT SECTION. ALL MASS PLANTING BEDS SHALL HAVE EDGING PLACED BETWEEN MULCH AREA AND ANY ADJACENT TURF AREA.
- MULCH:
 - A. RIVER ROCK MULCH AREA: MEXICAN BEACH AGGREGATE MULCH, 3" IN SIZE, GRAY IN COLOR, WASHED AND ROUNDED, SHALL BE INSTALLED WITHIN THE RIVER ROCK MULCH AREA PER PLAN. RIVER ROCK SHALL BE INSTALLED AT 6" DEPTH.
 - B. NON-DRYED, DOUBLE SHREDDED HARDWOOD MULCH SHALL BE INSTALLED IN ALL OTHER LANDSCAPE BEDS OUTSIDE OF THE RIVER ROCK MULCH AREA, AT A 3" DEPTH.

GENERAL WORK PROCEDURES

- LANDSCAPE WORK SHALL BE ACCORDING TO THE WORKMANLIKE STANDARDS ESTABLISHED FOR LANDSCAPE CONSTRUCTION AND PLANTING IN THE MICHIGAN STANDARDIZED LANDSCAPE SPECIFICATIONS (ASLA) AND ANY LOCAL LANDSCAPE ORDINANCES.
- CONTRACTOR SHALL OBTAIN A COPY OF LOCAL ORDINANCES REGARDING ACCEPTABLE PLANT AND PLANTING DETAILS AND ABIDE BY THOSE ORDINANCES AND DETAILS.
- ENGINEER RESERVES THE RIGHT TO REJECT ALL PLANT MATERIAL DEEMED NOT ACCEPTABLE.
- ANY PROPOSED PLANT SUBSTITUTIONS SHALL BE EQUIVALENT IN FORM, HABIT, STRUCTURE, BRANCHING AND LEAF TYPE AND MUST BE ISSUED TO THE LANDSCAPE ARCHITECT FOR APPROVAL, IN WRITING, PRIOR TO INSTALLATION.

WEEDING

- BEFORE AND DURING PRELIMINARY GRADING AND FINISH GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.

PLANTING

- POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE OWNER BEFORE EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.
- PLANTING PITS SHALL BE AS PER DETAILS.
- PREPARED SOIL SHALL BE TAMPED FIRMLY AT BOTTOM OF PIT. FILL WITH PLANTING SOIL AROUND BALL OF PLANT. COMPLETE BACKFILLING AND WATER THOROUGHLY.
- EACH TREE AND SHRUB SHALL RECEIVE THE LANDSCAPER'S BIONUTRITION (3-0-3) GRANULAR WITH MYCORRHIZAL TECHNOLOGY FERTILIZER OR APPROVED OTHER. APPLY FERTILIZER PER MANUFACTURER'S SPECIFICATIONS.
- WATER IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED.
- INSTALL BED EDGING AND MULCH PER MATERIALS SPECIFICATION AND DETAILS.
- REMOVE ALL SALES TAGS, STRINGS, STRAPS, WIRE, ROPE OR OTHER MATERIALS THAT MAY INHIBIT PLANT GROWTH BOTH ABOVE AND BELOW THE SURFACE OF THE SOIL.
- REMOVE ANY BROKEN, SUCKERING, DISEASED, CRISSCROSSED OR AESTHETICALLY DISPLEASING BRANCHES BACK TO LIVE LEADER OR SIDE LATERAL WITH A FLUSH CUT.

FINISH GRADING

- ALL AREAS WILL BE GRADED BY THE CONTRACTOR TO SUBSTANTIALLY PLUS/MINUS 0.1 FOOT OF FINISH GRADE.
- ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN, UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE. SOIL AREAS ADJACENT TO THE BUILDINGS SHALL SLOPE AWAY FROM THE BUILDINGS.
- ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER.
- PARKING LOT ISLAND SHALL BE BACKFILLED AS PART OF THIS CONTRACT.

GROUND COVER

- SPACING AND VARIETY OF GROUND COVER SHALL BE AS SHOWN ON DRAWINGS.
- MULCH GROUND COVER WITH 2" THICKNESS OF SPHAGNUM PEAT.
- IMMEDIATELY AFTER PLANTING GROUND COVER, CONTRACTOR SHALL THOROUGHLY WATER GROUND COVER.
- ALL GROUND COVER AREAS SHALL BE TREATED WITH A PRE-EMERGENT BEFORE FINAL LANDSCAPE INSPECTION. GROUND COVER AREAS SHALL BE WEEDED PRIOR TO APPLYING PRE-EMERGENT. PRE-EMERGENT TO BE APPLIED AS PER MANUFACTURER'S RECOMMENDATION.

GUARANTEE

- CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF PROJECT ACCEPTANCE BY THE OWNER.

CLEANUP

- UPON THE COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. AN 'ACCEPTABLE CONDITION' SHALL BE AS DEFINED AND APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

MAINTENANCE

- (MAINTENANCE PERIOD TO COMMENCE AFTER FINAL INSPECTION.)
- MAINTENANCE PERIOD FOR THIS CONTRACT SHALL BE 90 CALENDAR DAYS COMMENCING AFTER FINAL INSPECTION OF CONSTRUCTION.
 - MAINTAIN TREES, SHRUBS AND OTHER PLANTS BY PRUNING, CULTIVATING AND WEEDING AS REQUIRED FOR HEALTHY GROWTH. RESTORE PLANTING SAUCERS, RESET TREES AND SHRUBS TO PROPER GRADES OR VERTICAL POSITION AS REQUIRED.
 - MAINTAIN LAWNS BY WATERING, MOWING, TRIMMING, AND OTHER OPERATIONS SUCH AS ROLLING, REGRADING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.
 - MAINTAIN THE LANDSCAPING BY KEEPING ALL PLANTS DISEASE-FREE AND PLANTING BEDS GROOMED, EXCEPT IN NATURALLY OCCURRING VEGETATION AREAS.
 - REPLACE ANY REQUIRED PLANTING(S), WHICH SEVERELY DECLINE OR DIE AFTER THE DATE OF PLANTING. SUCH REPLACEMENT SHALL OCCUR DURING THE NEXT APPROPRIATE PLANTING SEASON.

SODDING

- SOD SHALL BE FIRST GRADE CERTIFIED BLENDS OF THE FOLLOWING SPECIES PER HARDINESS ZONE CONTAINING NOT MORE THAN 30 PERCENT OF OTHER GRASSES AND CLOVERS, AND FREE FROM ALL NOXIOUS WEEDS.
 - ZONES 3, 4 & 5: APPROVED BLUE GRASS BLEND
 - ZONE 6: APPROVED FESCUE BLEND
 - ZONES 7 & 8: APPROVED BERMUDA BLEND
 - ZONES 9 & 10: APPROVED ST AUGUSTINE FLORATAM BLEND
- SOD SHALL BE RECENTLY MOWED TO A HEIGHT OF NOT LESS THAN 3 INCHES. IT SHALL BE CUT INTO STRIPS OF NOT LESS THAN 3 FEET AND NOT OVER 6 FT. WITH A UNIFORM WIDTH OF NOT OVER 24 INCHES.
- SOD SHALL BE CUT TO A DEPTH EQUAL TO THE GROWTH OF THE FIBROUS ROOTS BUT IN NO CASE LESS THAN 1 INCH.
- SOD SHALL BE DELIVERED TO THE JOB WITHIN 24 HOURS AFTER BEING CUT AND SHALL BE INSTALLED WITHIN 48 HOURS AFTER BEING CUT.
- BEFORE SOD IS PLACED, THE SOD BED WILL HAVE BEEN EXCAVATED TO SUCH A DEPTH THAT WHEN THE SOD IS IN PLACE THE TOP OF THE SOD WILL BE FLUSH WITH THE SURROUNDING GRADE.
- NO SOD SHALL BE PLACED WHEN THE TEMPERATURE IS BELOW 32 DEGREES F. NO FROZEN SOD SHALL BE PLACED NOR SHALL ANY SOD BE PLACED ON FROZEN SOIL. WHEN SOD IS PLACED BETWEEN THE DATES OF JUNE 1ST AND OCTOBER 15TH, IT SHALL BE COVERED IMMEDIATELY WITH A STRAW MULCH 1 INCH THICK (LOOSE MEASUREMENT).
- AFTER LAYING, THE SOD SHALL BE WATERED THOROUGHLY AND TAMPED WITH APPROVED SOD TAMPERS SUFFICIENTLY TO BRING THE SOD INTO CLOSE CONTACT WITH THE SOD BED AND INSURE TIGHT JOINTS BETWEEN THE SECTIONS OR STRIPS.
- THE CONTRACTOR SHALL KEEP ALL SODDED AREAS INCLUDING SUBGRADE, THOROUGHLY MOIST FOR 30 DAYS AFTER SODDING.
- THE CONTRACTOR SHALL REPAIR ANY AREAS DAMAGED FOLLOWING INSTALLATION AS DIRECTED BY THE ENGINEER. SOD SHALL BE IN PLACE AT LEAST 30 DAYS BEFORE FINAL ACCEPTANCE.

SEEDING

- GRASS SEED SHALL BE FRESH, CLEAN, DRY, NEW-CROP SEED COMPLYING WITH THE ASSOCIATION OF OFFICIAL SEED ANALYSTS "RULES FOR TESTING SEEDS" FOR PURITY AND GERMINATION TOLERANCES.
- ALL AREAS TO BE SEEDED SHALL RECEIVE NO LESS THAN FIVE POUNDS OF SEED PER ONE THOUSAND SQUARE FEET. APPLY SEED AND PROTECT WITH STRAW MULCH AS REQUIRED FOR NEW LAWNS. GRASS SEED MIX SHALL CONSIST OF THE FOLLOWING:

PROPORTION	NAME	MIN. % MAX. %		
		MIN. % GERM.	PURE SEED	WEED SEED
30%	KENTUCKY BLUEGRASS (POA PRATENSIS)	80	85	0.50
30%	CREEPING RED FESCUE (FESTUCA RUBRA)	85	98	0.50
20%	PERENNIAL RYE GRASS (LOLIUM PERENNE)	90	98	0.50
20%	ANNUAL RYEGRASS (LOLIUM MULTIFLORUM)	85	92	1.00

PLANTING SCHEDULE

- ALL PLANTING IS RECOMMENDED TO BE DONE WITHIN THE FOLLOWING DATES. WHEN PLANTING OUTSIDE THESE DATES, WRITTEN DOCUMENTATION SHALL BE PROVIDED THAT SURVIVAL OR REPLACEMENT WILL BE ENSURED. NO PLANTING SHALL BE DONE IN FROZEN SOIL.

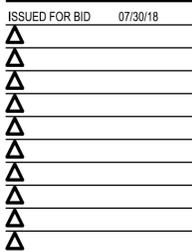
NORMAL PLANTING SEASONS	SPRING	FALL
ALL TREES AND SHRUBS	MARCH 15-MAY 15	OCTOBER 1-DECEMBER 1
EVERGREENS	APRIL 1-MAY 15	OCTOBER 1-NOVEMBER 15
GROUNDCOVERS	APRIL 1-JUNE 1	WHEN SOD IS WORKABLE
SEED AND MULCH	APRIL 1-MAY 15	OCTOBER 1-NOVEMBER 15

GENERAL NOTE

- ALL AREAS DISTURBED BY CONSTRUCTION THAT ARE WITHIN THE RIGHT-OF-WAY SHALL BE FINE GRADED TO MAINTAIN POSITIVE DRAINAGE. HAVE A 4" LAYER OF TOPSOIL APPLIED AND BE SEEDED ACCORDING TO SPECIFICATIONS ON THIS SHEET.

PLANT LIST

Symbol	Botanical Name	Common Name	Qty.	Min. Size	Condition	Remarks
Ar	Acer rubrum 'Northwood'	Northwood Red Maple	2	2.5" Cal.	B&B	Matching
Bx	Buxus x 'Green Gem'	Green Gem Boxwood	45	18" H, No. 3	Cont.	3' o/c
Gt	Gleditsia triacanthos f. inermis 'Skycole'	Skyline Honeylocust	7	2.5" Cal.	B&B	Specimen
Hh	Hemerocallis 'Happy Returns'	Happy Returns Daylily	41	No. 1	Cont.	1.5' o/c
Jh	Juniperus horizontalis 'Wilton'	Blue Rug Juniper	2	No. 3	Cont.	Per Plan
Js	Juniperus scopulorum 'Sky Rocket'	Sky Rocket Juniper	3	5' H	B&B	Matching
Mj	Malus 'Jewelcole'	Red Jewel Crabapple	4	10-12' H	B&B	Multi-stem, matching
Pa	Pennisetum alopecuroides 'Hameln'	Dwarf Fountain Grass	11	No. 2	Cont.	Per Plan
Pg	Picea glauca	White Spruce	13	8' H	B&B	Specimen
Po	Picea omorika	Serbian Spruce	12	8' H	B&B	Specimen
Pv	Prunus virginiana 'Canada Red'	Canada Red Chokecherry	1	2" Cal.	B&B	Matching
Rm	Rosa 'Meicoublan'	White Meidiland Rose	51	24" H, No. 3	Cont.	3' o/c
Sb	Spiraea x bumalda 'Anthony Waterer'	Anthony Waterer Spirea	65	24" H, No. 3	Cont.	3' o/c
To	Thuja occidentalis 'Emerald'	Emerald Arborvitae	9	5' H	B&B	4' o/c
Vo	Viburnum opulus 'Compactum'	Compact Cranberry Bush Viburnum	3	36" H, No. 5	Cont.	Per Plan
Yf	Yucca flaccida	Adam's Needle	5	No. 3	Cont.	Per Plan



ISSUED FOR BID 07/30/18

CONTRACT DATE: XX.XX.XX

BUILDING TYPE: T40M-O

PLAN VERSION: JAN 18

SITE NUMBER: 312720/446548

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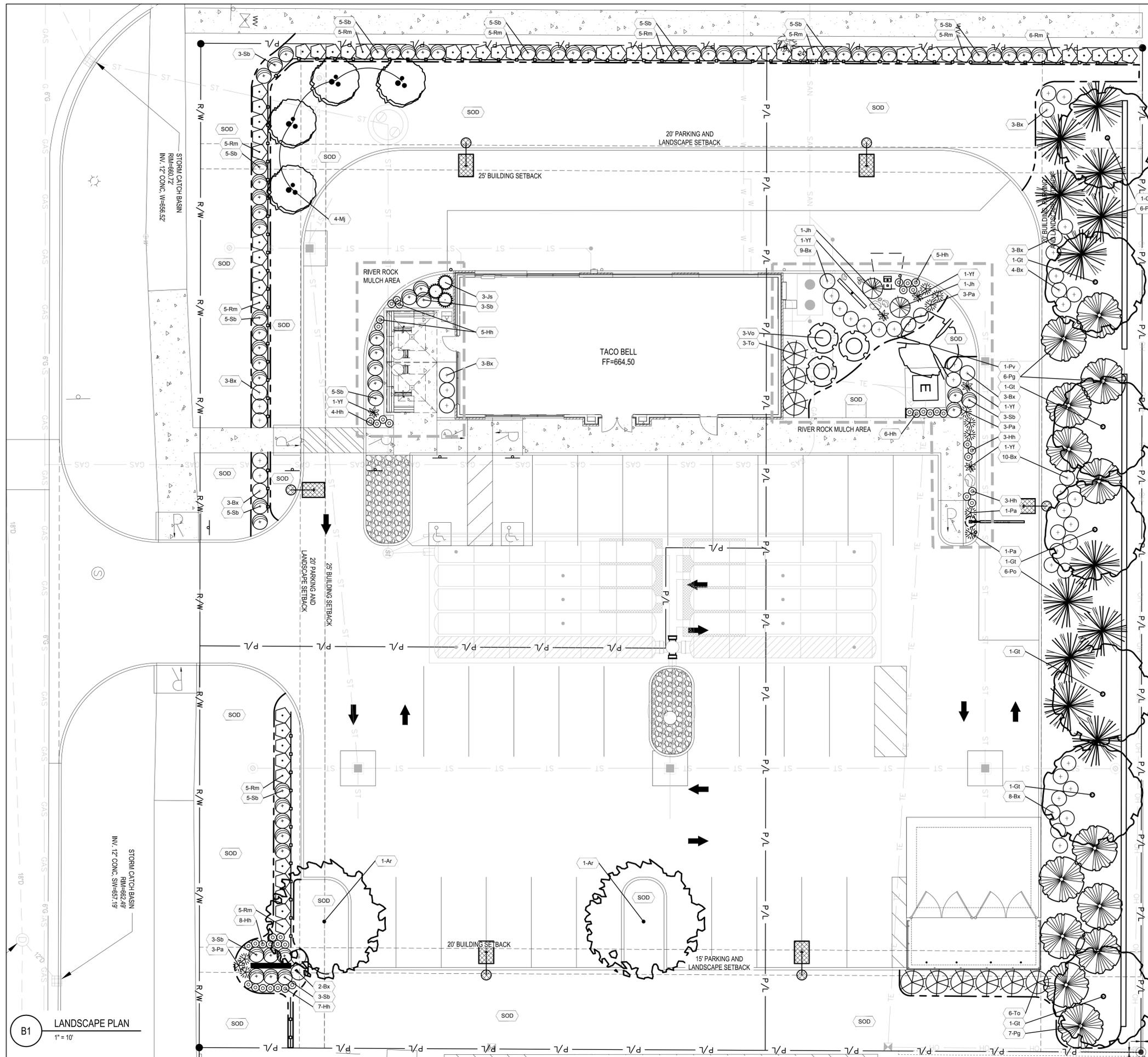


MODERN EXPLORER

T40 - OPEN KITCHEN

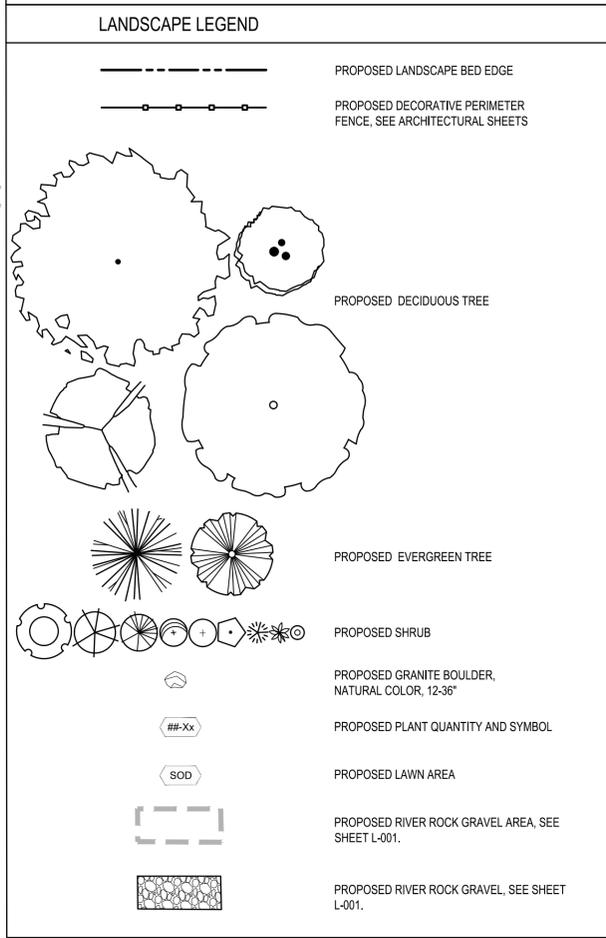
LANDSCAPE NOTES

L-001



LANDSCAPE NOTES

- SEE SHEET L-001 FOR COMPLETE PLANT LIST.
- MULCH PER LANDSCAPE SPECIFICATIONS.
- ALL AREAS DISTURBED BY CONSTRUCTION THAT ARE WITHIN THE RIGHT-OF-WAY SHALL BE FINE GRADED TO MAINTAIN POSITIVE DRAINAGE, HAVE A 4" LAYER OF TOPSOIL APPLIED AND BE SEEDED ACCORDING TO SPECIFICATIONS ON THIS SHEET.



LANDSCAPE CALCULATION, BY PARKING

REQUIRED: 30 PARKING SPACES = 3 TREES
PROVIDED: 31 PARKING SPACES = 3 TREES
PROPOSED INTERIOR TREES: 3

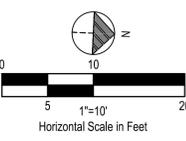
ADJACENT RESIDENTIAL BUFFER

REQUIRED: 1 DECIDUOUS TREE PER 30 LINEAL FEET, 1 EVERGREEN TREE AND SHRUB PER 8 LINEAL FEET
NORTH PROPERTY = 200 LINEAL FEET
REQUIRED: 6.6 DECIDUOUS TREES, 25 EVERGREEN TREES & SHRUBS
PROPOSED: 7 DECIDUOUS TREES, 25 EVERGREEN TREES & SHRUBS

EXISTING TREE REMOVAL & REPLACEMENT

EXISTING TREES TO BE REMOVED	
15" AUSTRIAN PINE	
12" JUNIPER	
15" RED MAPLE	
20" SCARLET OAK	
10" WALNUT	
20" MULBERRY	
10" BOXELDER	
EXISTING TREES TO BE REMAIN	
24" SILVER MAPLE	
REPLACEMENT TREES	
14 PROPOSED DECIDUOUS TREES	
25 PROPOSED EVERGREEN TREES	

NOTE: SEE SHEET C-101 FOR LOCATIONS OF REMOVED TREES.



B1 LANDSCAPE PLAN
1" = 10'

ISSUED FOR BID 07/30/18
 CONTRACT DATE: XX.XX.XX
 BUILDING TYPE: T40M-O
 PLAN VERSION: JAN 18
 SITE NUMBER: 312720/446548
 STORE NUMBER: 2017088.72

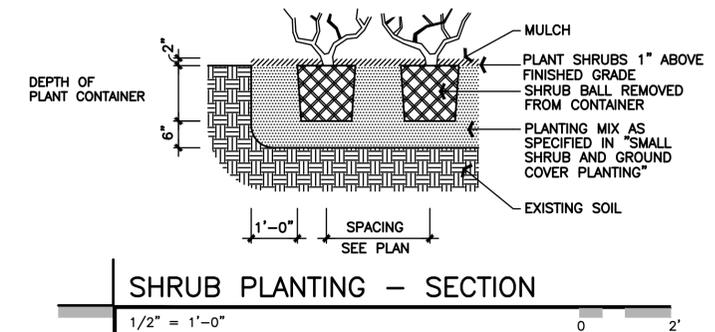
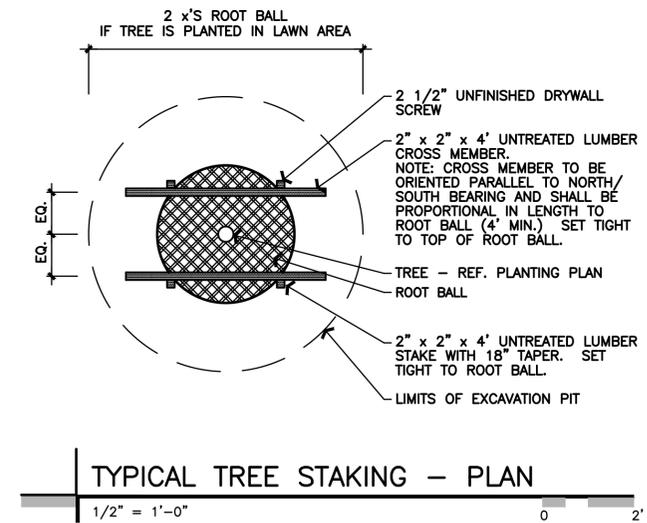
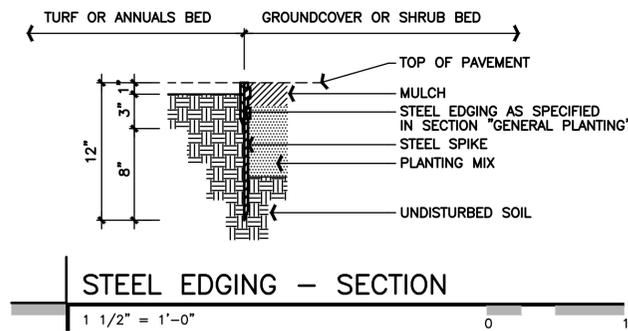
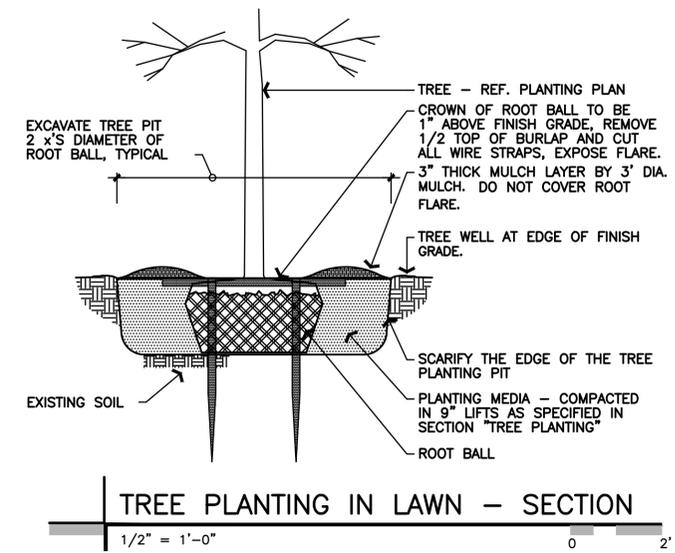
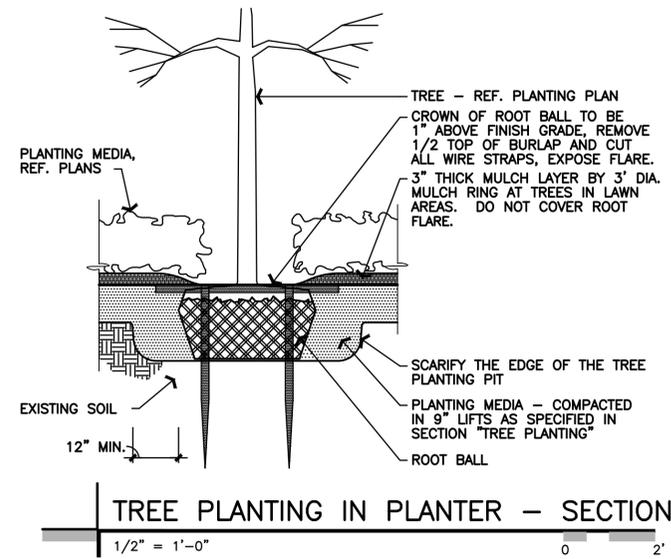
TACO BELL
20779 13 MILE RD.
WESTLAND, MI



MODERN EXPLORER
T40 - OPEN KITCHEN

LANDSCAPE PLAN

L-101



ISSUED FOR BID	07/30/18
CONTRACT DATE:	XX.XX.XX
BUILDING TYPE:	T40M-O
PLAN VERSION:	JAN 18
SITE NUMBER:	312720/446548
STORE NUMBER:	2017088.72

TACO BELL
20779 13 MILE RD.
WESTLAND, MI



MODERN EXPLORER
T40 - OPEN KITCHEN

LANDSCAPE
DETAILS

L-501