

# GRANDMONT ROSEDALE GSI LOT

## GRANDMONT ROSEDALE DEVELOPMENT CORPORATION

19526, 19534, 19540, 19550 AND 19566 WEST GRAND RIVER AVENUE, DETROIT, MICHIGAN  
(LOTS 2166, 2167, 2168, 2169, 2170, 2172, 2173, 2174, 2145, 2176, & 2177)

JOB #: 240264

*P. A. May*  
Pearl A. May,  
MI P.E. No.  
6201313414  
06-05-2024  
Date



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**Grandmont  
Rosedale GSI Lot  
Grandmont Rosedale  
Development  
Corporation**

19526, 19534, 19540, 19550,  
19560 Grand River Avenue  
Detroit, MI

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PROGRESS SET	05-14-20
PRELIMINARY	11-07-19

240264 ECT PROJECT NUMBER	
PAM DESIGNED BY	TP CHECKED BY
PAM DRAWN BY	TP APPROVED BY

COVER SHEET

ALTERNATIVE  
ENGINEERED  
DESIGN

SHEET NUMBER

**C0.0**

3 WORKING DAYS  
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### LOCATION MAP



### SCHEDULE OF DRAWINGS

C-0.0	COVER
C-1.0	EXISTING CONDITIONS PLAN AND AERIAL
C-2.0	DEMOLITION PLAN
C-3.0	SITE LAYOUT AND LANDSCAPE PLAN
C-4.0	GRADING AND UTILITY PLAN AND CONSTRUCTION NOTES
C-5.0	CONSTRUCTION DETAILS
C-5.1	CONSTRUCTION DETAILS
C-5.2	CONSTRUCTION DETAILS

### SCOPE OF WORK

OVERALL SCOPE OF WORK CONSISTS OF:  
- INSTALLATION OF GREEN STORMWATER INFRASTRUCTURE AND ASSOCIATED GRADING AND DRAINAGE IMPROVEMENTS AT 19526 W. GRAND RIVER AVE/PARCEL ID: 22007992-3 (LOTS 2166 & 2167), 19534 W. GRAND RIVER AVE/PARCEL ID: 22007990-1 (LOTS 2168 & 2169), 19540 W. GRAND RIVER AVE/PARCEL ID: 22007989 (LOT 2170), 19550 W. GRAND RIVER AVE/PARCEL ID: 22007984-7 (LOTS 2172, 2173, 2174 & 2175), AND 19566 W. GRAND RIVER AVE/PARCEL ID: 22007982-3 (LOTS 2176 & 2177) TO MANAGE STORMWATER RUNOFF.  
-REPAVING OF EXISTING CONCRETE PARKING LOT AND PUBLIC SIDEWALK AT 19534 W. GRAND RIVER AVE/PARCEL ID: 22007990-1 (LOTS 2168 & 2169).  
-ADDITION OF CURB CUT AT 19534 W. GRAND RIVER AVE/PARCEL ID: 22007990-1 (LOTS 2168 & 2169), INCLUDING ASSOCIATED STRIPING FOR BIKE LANE ON W. GRAND RIVER AVE.

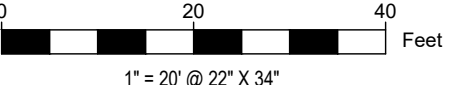
GREEN STORMWATER INFRASTRUCTURE (GSI) IMPROVEMENTS INCLUDE:  
-INSTALLATION OF A TRENCH DRAIN AT THE REAR OF LOTS 2172, 2173, 2174, 2175, 2176, & 2177 THAT CONNECTS TO GSI AT LOT 2170.  
-INSTALLATION OF A BIORETENTION BASIN WITH NATIVE PLANTINGS AND SUBSURFACE STORAGE AT LOT 2170.  
-INSTALLATION OF PEDESTRIAN POROUS PAVERS WITH SUBSURFACE STORAGE AT LOT 2170.  
-INSTALLATION OF A COMMERCIAL PARKING LOT AND DRIVEWAY AT LOTS 2168 & 2169 WHICH INCLUDES DRAINAGE STRUCTURES, STORM SEWER, AND SURFACE GRADING TO ROUTE STORMWATER RUNOFF FROM LOTS 2166, 2167, 2168 & 2169 TO THE BIORETENTION BASIN, POROUS PAVING, AND SUBSURFACE STORAGE AT LOT 2170.  
-INSTALLATION OF A DUMPSTER PAD AT THE REAR OF LOTS 2166 & 2167 TO DIRECT FLOW TOWARDS LOT 2168.  
-OVERFLOW CONNECTION FROM THE GSI SYSTEM AT LOT 2170 TO THE EXISTING STORM SEWER IN THE ALLEY BEHIND LOT 2170.

### ABBREVIATIONS & SYMBOLS

AC	ACRE	LBS	POUNDS
A.S.T.M.	AMERICAN SOCIETY OF TESTING MATERIALS	MANUF'S	MANUFACTURE'S
BIT.	BITUMINOUS	MAX.	MAXIMUM
BC	BOTTOM OF CURB	MGR	MANAGER
BOG	BOTTOM OF GRAVEL	MH	MANHOLE
BS	BOTTOM OF STEP	NO.	NUMBER
BW	BOTTOM OF WALL	MIN.	MINIMUM
CA	COARSE AGGREGATE	NTS	NOT TO SCALE
CB	CATCH BASIN	OC	ON CENTER
CLR	CLEARANCE	OD	OUTSIDE DIAMETER
CONC.	CONCRETE	ORD.	ORDINANCE
CONT.	CONTINUOUS	PC	POINT OF CURVATURE
CMU	CONCRETE MASONRY UNIT	PCC	PORTLAND CEMENT CONCRETE
CL	CENTER LINE	PI	POINT OF INTERSECTION
DI	DUCTILE IRON PIPE	PR.	PROPOSED
DIA.	DIAMETER	PSI	POUNDS PER SQUARE INCH
DWG	DRAWING	PT	POINT OF TANGENCY
EJ	EXPANSION JOINT	R	RADIUS
EP	EDGE OF PAVEMENT	REINF.	REINFORCED
ELEV.	ELEVATION	REQD	REQUIRED
EQ	EQUAL	SAN.	SANITARY
EX.	EXISTING	SIM.	SIMILAR
FH	FIRE HYDRANT	SPEC(S)	SPECIFICATION(S)
FT	FEET	STD	STANDARD
GA	GAUGE	STL	STEEL
GAL.	GALLON	SS	STAINLESS STEEL
GEN.	GENERAL	TS	TOP OF STEP
GSI	GREEN STORMWATER INFRASTRUCTURE	TC	TOP OF CURB
GV	GAS VALVE	TW	TOP OF WALL
HT	HEIGHT	TYP.	TYPICAL
HP	HIGH POINT	VIT.	VITRIFIED
HYD.	HYDRANT	VCP	VITRIFIED CLAY PIPE WITH
IDEN.	IDENTIFICATION	W/	WOODEN SERVICE POLE
INFO.	INFORMATION	WV	WATER VALVE
INL	INLET	WM	WATER METER
INV	PIPE INVERT	WWM	WELDED WIRE MESH



**AREA OF IMPROVEMENTS**



1" = 20' @ 22" X 34"

3 WORKING DAYS  
BEFORE YOU DIG  
CALL MISS DIG  
1-800-482-7171

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

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**EXISTING  
CONDITIONS  
PLAN AND  
AERIAL**

**ALTERNATIVE  
ENGINEERED  
DESIGN**

SHEET NUMBER  
**C1.0**

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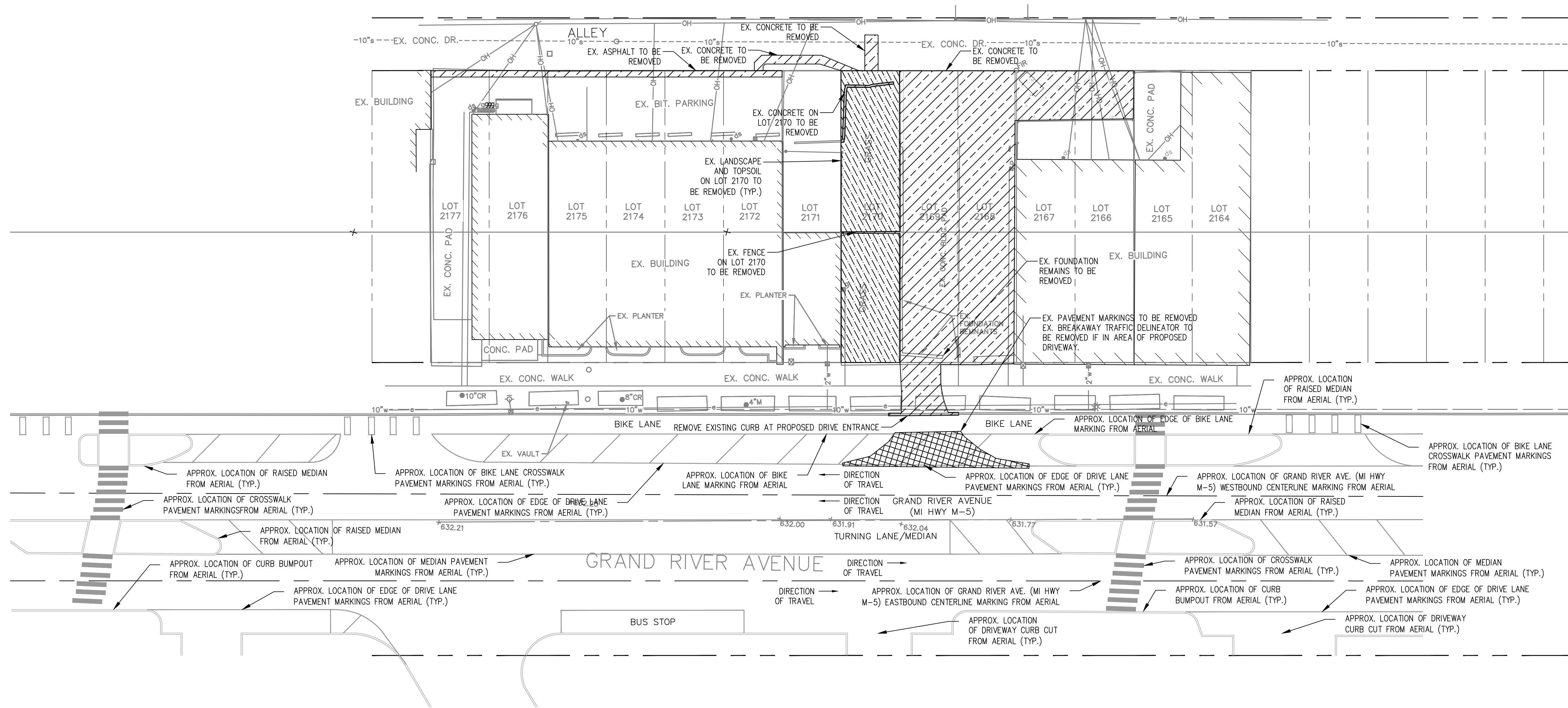
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**DEMOLITION PLAN**

**ALTERNATIVE ENGINEERED DESIGN**

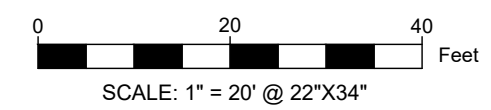
SHEET NUMBER

**C2.0**



**GENERAL NOTES**

- ALL WORK WITHIN THE RIGHT OF WAY SHALL BE DONE IN ACCORDANCE WITH CURRENT MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND ACCORDING TO THE ADMINISTRATIVE RULES OF ACT 200, P.A. OF 1969.
- SEE GRADING AND DRAINAGE SHEET FOR GENERAL CONSTRUCTION NOTES.
- NO DEMOLITION IS TO BE CONDUCTED ON LOT 2171.
- EXISTING BUILDING IN LOT 2171 ADJACENT TO PROPOSED POROUS PAVERS SHALL BE PROTECTED DURING CONSTRUCTION AND ADEQUATE SHORING PROVIDED WHERE NEEDED.
- CONTRACTOR SHALL COMPLY WITH ALL MDT PROCEDURES TO SUBMIT AND PROVIDE A PEDESTRIAN DETOUR PATH DURING CONSTRUCTION IN THE MDT RIGHT-OF-WAY.
- REMOVE AND LEGALLY DISPOSE OF ALL REMOVED MATERIAL. BROKEN CONCRETE SHALL NOT BE USED WITHIN BIORETENTION AREA OR POROUS UNIT PAVERS AREA.



LEGEND	
---	EX. RIGHT OF WAY
- - -	EX. LOT LINE
---	EX. GAS LINE
⊗	EX. GAS METER
---	EX. WATER LINE
⊗	EX. WATER METER
---	EX. SEWER
-e-	EX. UNDERGROUND ELECTRIC
-OH-	EX. OVERHEAD WIRES
⊙	EX. DOWNSPOUT
▨	PR. PAVEMENT DEMOLITION AREA
▩	PR. LANDSCAPE OR SOIL DEMOLITION AREA
▧	PR. PAVEMENT MARKING REMOVAL AREA

E:\PROJECTS\240264\240264.dwg, PLOT: 240264.dwg, PLOT DATE: 06/05/2024, PLOT TIME: 10:00:00 AM, PLOT USER: PAM

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

*PAM*  
 Pearl A. May,  
 M.P.E. No. 6201313414  
 Date 06-05-2024



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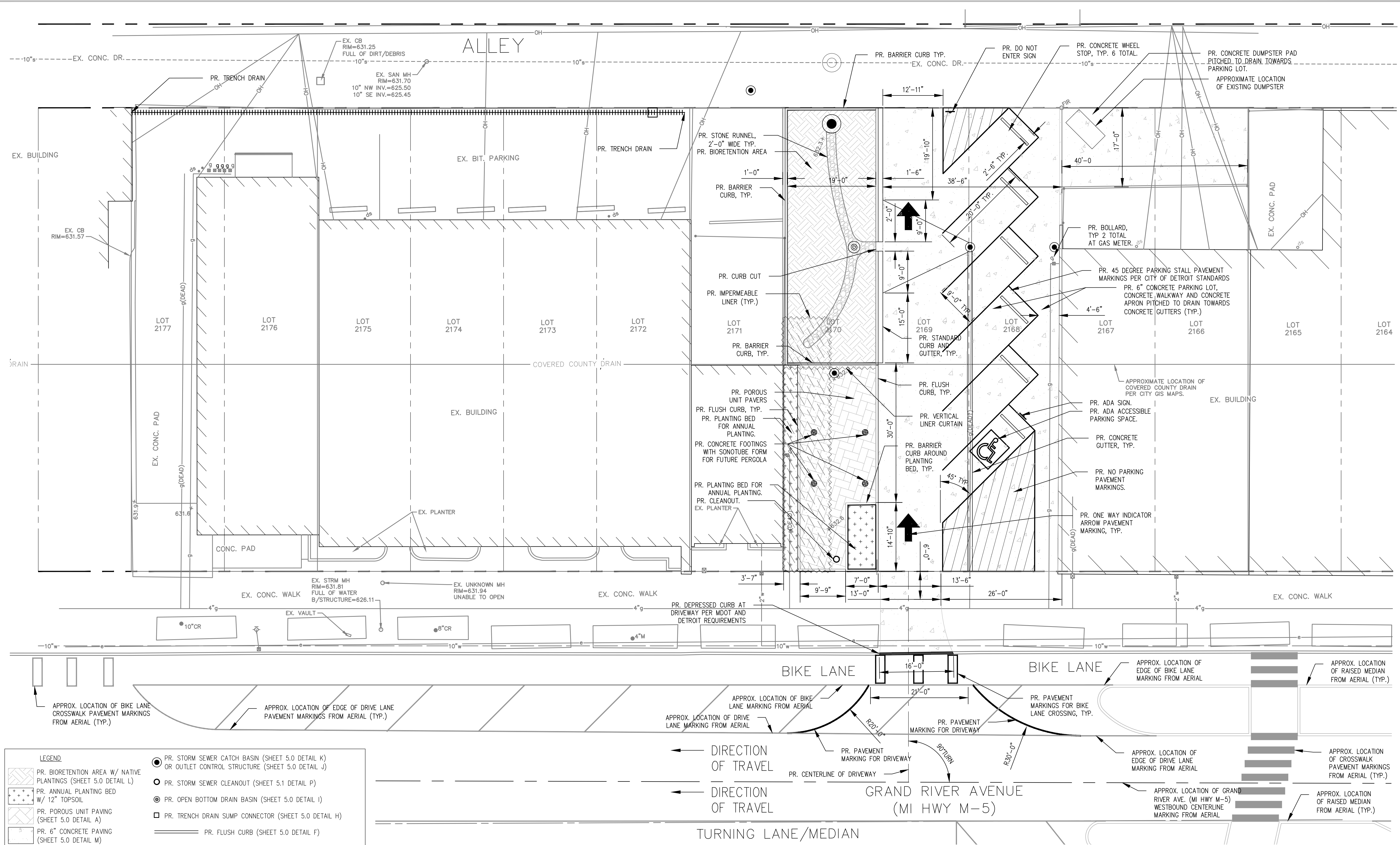
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**SITE LAYOUT & LANDSCAPE PLAN**

**ALTERNATIVE ENGINEERED DESIGN**

SHEET NUMBER **C3.0**



**LEGEND**

- PR. BIORETENTION AREA W/ NATIVE PLANTINGS (SHEET 5.0 DETAIL L)
- PR. ANNUAL PLANTING BED W/ 12" TOPSOIL
- PR. POROUS UNIT PAVING (SHEET 5.0 DETAIL A)
- PR. 6" CONCRETE PAVING (SHEET 5.0 DETAIL M)
- PR. STONE RUNNEL (SHEET 5.0 DETAIL G)
- PR. IMPERMEABLE LINER
- PR. STORM SEWER MANHOLE (SHEET 5.1 DETAILS O, Q, & R)
- PR. BOLLARD (SHEET 5.0 DETAIL F)
- PR. STORM SEWER CATCH BASIN (SHEET 5.0 DETAIL K) OR OUTLET CONTROL STRUCTURE (SHEET 5.0 DETAIL J)
- PR. STORM SEWER CLEANOUT (SHEET 5.1 DETAIL P)
- PR. OPEN BOTTOM DRAIN BASIN (SHEET 5.0 DETAIL I)
- PR. TRENCH DRAIN SUMP CONNECTOR (SHEET 5.0 DETAIL H)
- PR. FLUSH CURB (SHEET 5.0 DETAIL F)
- PR. BARRIER CURB (SHEET 5.0 DETAIL D)
- PR. CURB AND GUTTER (SHEET 5.2 DETAIL V)
- PR. CONC. GUTTER (SHEET 5.0 DETAIL N)
- PR. TRENCH DRAIN (SHEET 5.0 DETAIL E)
- PR. VERTICAL LINER CURTAIN (SHEET 5.0 DETAIL B)

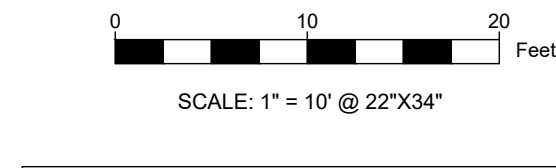
EX. RIGHT OF WAY  
 EX. LOT LINE

**BIORETENTION PLANTING SCHEDULE**

FORBS	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING
	76	ECHINACEA PURPUREA	PURPLE CONEFLOWER	PLUG	18" O.C. TRIANGULAR
	76	IRIS VIRGINICA	WILD BLUE FLAG	PLUG	18" O.C. TRIANGULAR
	76	RUDBECKIA HIRTA	BLACK-EYE SUSAN	PLUG	18" O.C. TRIANGULAR
GRASSES	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING
	190	CAREX VULPINOIDEA	BROWN FOX SEDGE	PLUG	18" O.C. TRIANGULAR
	76	JUNCUS EFFUSUS	SOFT RUSH	PLUG	18" O.C. TRIANGULAR

NOTES: 1) PLUGS ARE TO BE PLANTED IN A RANDOM MIXED PATTERN THROUGHOUT THE BIORETENTION AREA. 2) NO MECHANICAL EQUIPMENT IS TO BE USED IN THE BIORETENTION AREA. ALL PLUGS ARE TO BE HAND PLANTED. 4) A MINIMUM OF 494 PLUGS TO BE PLANTED IN THE BIORETENTION AREA. 5) SPECIES SUBSTITUTIONS SHALL BE APPROVED BY THE PROJECT ENGINEER OR PROJECT LANDSCAPE ARCHITECT.

- GENERAL NOTES**
- ALL WORK WITHIN THE RIGHT OF WAY SHALL BE DONE IN ACCORDANCE WITH CURRENT MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND ACCORDING TO THE ADMINISTRATIVE RULES OF ACT 200, P.A. OF 1969.
  - SEE GRADING AND DRAINAGE SHEET FOR GENERAL CONSTRUCTION NOTES.
  - EXISTING BUILDING IN LOT 2171 ADJACENT TO PROPOSED POROUS PAVERS SHALL BE PROTECTED DURING CONSTRUCTION AND ADEQUATE SHORING PROVIDED WHERE NEEDED.
  - PROPOSED PERGOLA CONCRETE FOOTERS IN SONOTUBE FORMS SHALL BE INSTALLED PER PERGOLA MANUFACTURER'S RECOMMENDATIONS. PROPOSED PERGOLA FOOTERS SHALL EXTEND A MINIMUM OF TWO FEET INTO THE SUBBASE SOIL BELOW THE POROUS PAVER SYSTEM. PROPOSED PERGOLA DESIGN TO BE SELECTED BY CLIENT.
  - CONTRACTOR SHALL COMPLY WITH ALL MDOT PROCEDURES TO SUBMIT AND PROVIDE A PEDESTRIAN DETOUR PATH DURING CONSTRUCTION IN THE MDOT RIGHT-OF-WAY.
  - ANNUAL PLANTING BED SOIL TO BE INSTALLED 2"-3" BELOW SURROUNDING CURB ELEVATION. CONTRACTOR SHALL NOT INSTALL MULCH ON ANNUAL PLANTING BEDS. PROPOSED ANNUAL PLANT SPECIES TO BE COORDINATED WITH OWNER.



**SEE SHEET 5.2 FOR PLUG PLANTING DETAIL**

*Pearl A. May*  
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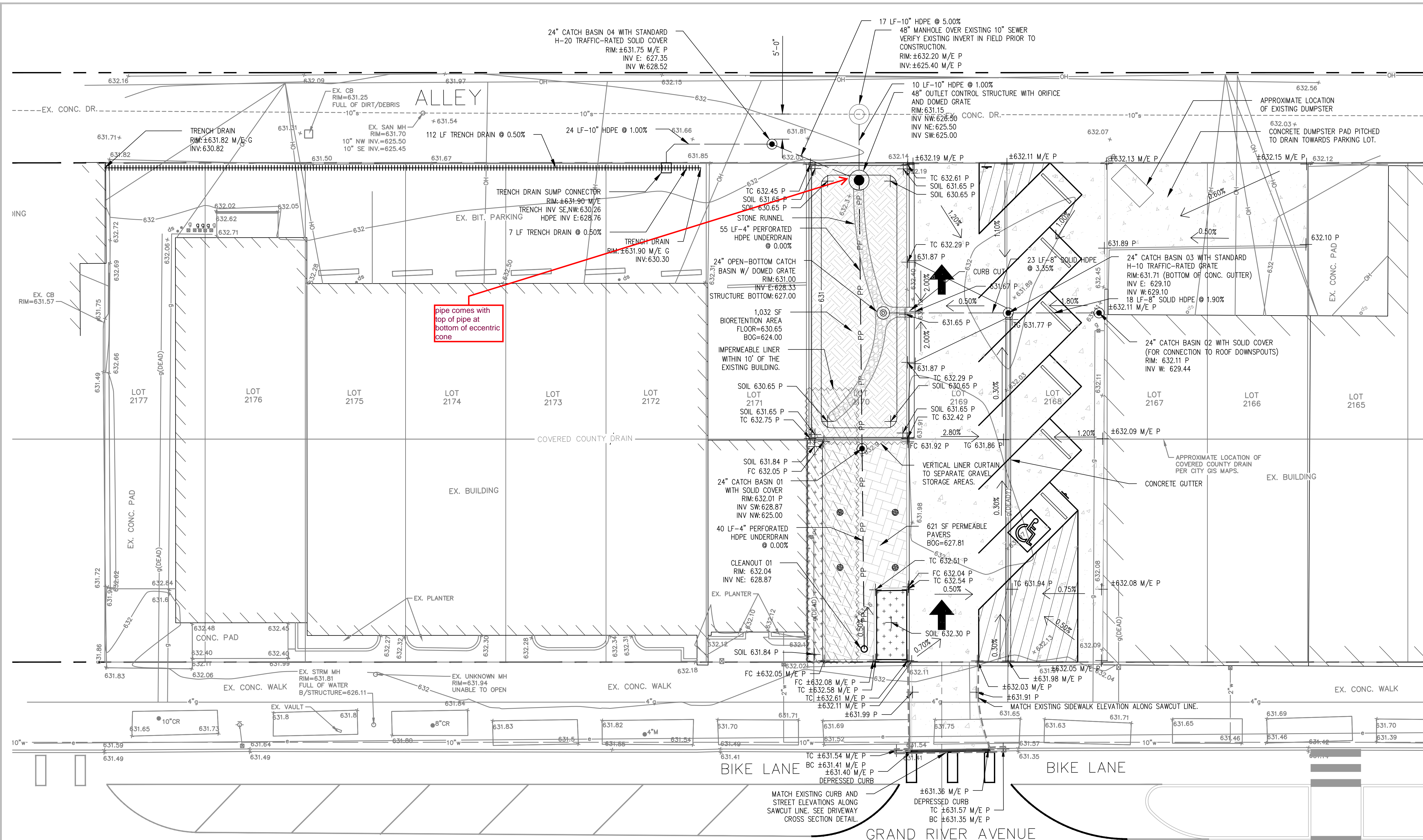
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**UTILITY AND GRADING PLAN**

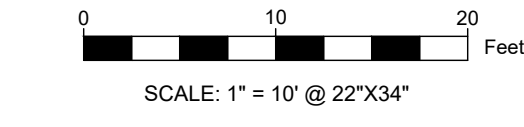
**ALTERNATIVE ENGINEERED DESIGN**

SHEET NUMBER  
**C4.0**



<b>LEGEND</b>	<ul style="list-style-type: none"> <li>● PR. STORM SEWER CATCH BASIN (SHEET 5.0 DETAIL K) OR OUTLET CONTROL STRUCTURE (SHEET 5.0 DETAIL J)</li> <li>○ PR. STORM SEWER CLEANOUT (SHEET 5.1 DETAIL P)</li> <li>⊙ PR. OPEN BOTTOM DRAIN BASIN (SHEET 5.0 DETAIL I)</li> <li>□ PR. TRENCH DRAIN SUMP CONNECTOR (SHEET 5.0 DETAIL H)</li> <li>PR. FLUSH CURB (SHEET 5.0 DETAIL F)</li> <li>PR. BARRIER CURB (SHEET 5.0 DETAIL D)</li> <li>PR. CURB AND GUTTER (SHEET 5.2 DETAIL V)</li> <li>PR. CONC. GUTTER (SHEET 5.0 DETAIL N)</li> <li>PR. TRENCH DRAIN (SHEET 5.0 DETAIL E)</li> <li>PR. VERTICAL LINER CURTAIN (SHEET 5.0 DETAIL B)</li> <li>PR. BIORETENTION AREA W/ NATIVE PLANTINGS (SHEET 5.0 DETAIL L)</li> <li>PR. ANNUAL PLANTING BED W/ 12" TOPSOIL</li> <li>PR. POROUS UNIT PAVING (SHEET 5.0 DETAIL A)</li> <li>PR. 6" CONCRETE PAVING (SHEET 5.0 DETAIL M)</li> <li>PR. STONE RUNNEL (SHEET 5.0 DETAIL G)</li> <li>PR. IMPERMEABLE LINER</li> <li>PR. STORM SEWER MANHOLE (SHEET 5.1 DETAILS O, Q, &amp; R)</li> <li>PR. BOLLARD (SHEET 5.0 DETAIL F)</li> </ul>	<ul style="list-style-type: none"> <li>EX. RIGHT OF WAY</li> <li>EX. LOT LINE</li> <li>EX. GAS LINE</li> <li>EX. GAS METER</li> <li>EX. WATER LINE</li> <li>EX. WATER METER</li> <li>EX. SEWER</li> <li>EX. UNDERGROUND ELECTRIC</li> <li>EX. OVERHEAD WIRES</li> <li>EX. DOWNSPOUT</li> <li>PR. STORM SEWER (HDPE, TYPE S)</li> <li>PR. PERFORATED UNDERDRAIN (HDPE, TYPE S)</li> <li>PR. SPOT ELEVATION</li> <li>PR. CONTOUR</li> <li>PR. PAVEMENT SLOPE</li> </ul>
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- GENERAL CONSTRUCTION NOTES**
- BEFORE ANY EXCAVATION OCCURS ON SITE THE CONTRACTOR SHALL CALL UTILITY ONE-CALL SERVICE TO LOCATE ANY EXISTING UTILITIES ON SITE. BEFORE COMMENCING WORK THE CONTRACTOR SHALL BE FAMILIAR WITH THE LOCATIONS OF ALL EXISTING BURIED UTILITIES IN AREAS OF WORK. IF UTILITIES ARE TO REMAIN IN PLACE PROVIDE ADEQUATE MEANS OF PROTECTION DURING SITE IMPROVEMENT OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF REPAIR OR REPLACEMENT OF ANY BURIED CONDUIT, CABLES, OR PIPING DAMAGED DURING THE INSTALLATION OF THIS WORK. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS AND OTHER UTILITIES TO REMAIN FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUTS AND OTHER HAZARDS CREATED BY SITE IMPROVEMENT OPERATIONS.
  - THE CONTRACTOR AT ALL TIMES SHALL KEEP THE PREMISES ON WHICH THE WORK IS BEING DONE, CLEAR OF RUBBISH AND DEBRIS.
  - ALL WORK AND OPERATIONS SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES AND ORDINANCES.
  - LAYOUT OF ALL NEW PATHWAYS, CURBS AND WALLS SHALL BE SMOOTH AND CONTINUOUS. KINKY ALIGNMENT OR ABRUPT CHANGES WILL NOT BE ACCEPTED.
  - LANDSCAPE ARCHITECT WILL REVIEW STAKED-OUT LAYOUT AND FORMWORK BEFORE CONSTRUCTION CONTINUES.
  - CONTRACTOR IS RESPONSIBLE TO NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES ON DRAWINGS.
  - CLEAR AND GRUB VEGETATION WITHIN AREAS OF NEW IMPROVEMENTS INCLUDING WOODY SHRUBS, HERBACEOUS VEGETATION, WOOD CHIP MULCH AND TURFGRASS.
  - RESTORE ALL AFFECTED ALLEY FLAGS TO ORIGINAL SHAPE BY REPLACING EACH FLAG FROM JOINT TO JOINT. SEE DETAILS FOR DETROIT TYPICAL PLAN AND SECTION FOR CONCRETE ALLEY PAVEMENT (C-4396).
  - EXISTING BUILDING IN LOT 2171 ADJACENT TO PROPOSED POROUS PAVERS SHALL BE PROTECTED DURING CONSTRUCTION AND ADEQUATE SHORING PROVIDED WHERE NEEDED.
  - THE OMISSION OF ANY CURRENT STANDARD DETROIT WATER AND SEWERAGE DEPARTMENT (DWS) DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT. THE WORK SHALL BE PERFORMED IN COMPLETE CONFORMANCE WITH THE CURRENT DWS STANDARD SPECIFICATIONS AND DETAILS.
  - CONTRACTOR SHALL COMPLY WITH ALL MDT PROCEDURES TO SUBMIT AND PROVIDE A PEDESTRIAN DETOUR PATH DURING CONSTRUCTION IN THE MDT RIGHT-OF-WAY.
  - CONTRACTOR SHALL PROVIDE CATCH BASIN INSERTS FOR ALL OPEN CATCH BASINS AND MANHOLES DURING THE PERIOD OF CONSTRUCTION.
  - CONTRACTOR SHALL REMOVE TRACKED SEDIMENT FROM THE PUBLIC RIGHT-OF-WAY ON A DAILY BASIS.
  - CONTRACTOR SHALL PROVIDE SILT FENCE AS NECESSARY TO PREVENT SEDIMENT RUNOFF FROM LEAVING THE SITE.



- GENERAL NOTES**
- SEE DETAIL T FOR PHOTO LOCATION OF CURB CUT.
  - SEE DETAIL U FOR DRIVEWAY CROSS SECTION DETAIL.
  - ALL WORK WITHIN THE RIGHT OF WAY SHALL BE DONE IN ACCORDANCE WITH CURRENT MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND ACCORDING TO THE ADMINISTRATIVE RULES OF ACT 200, P.A. OF 1969.

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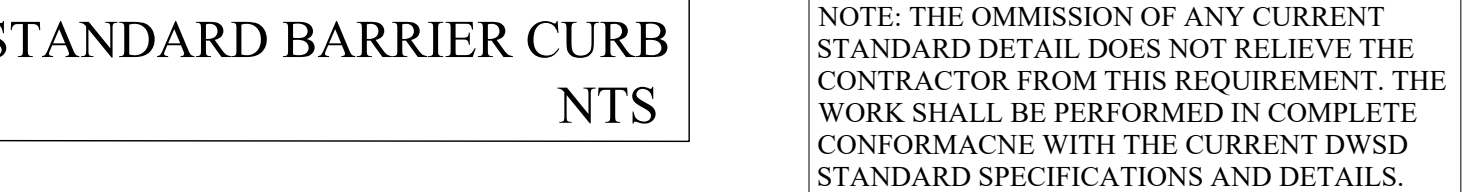
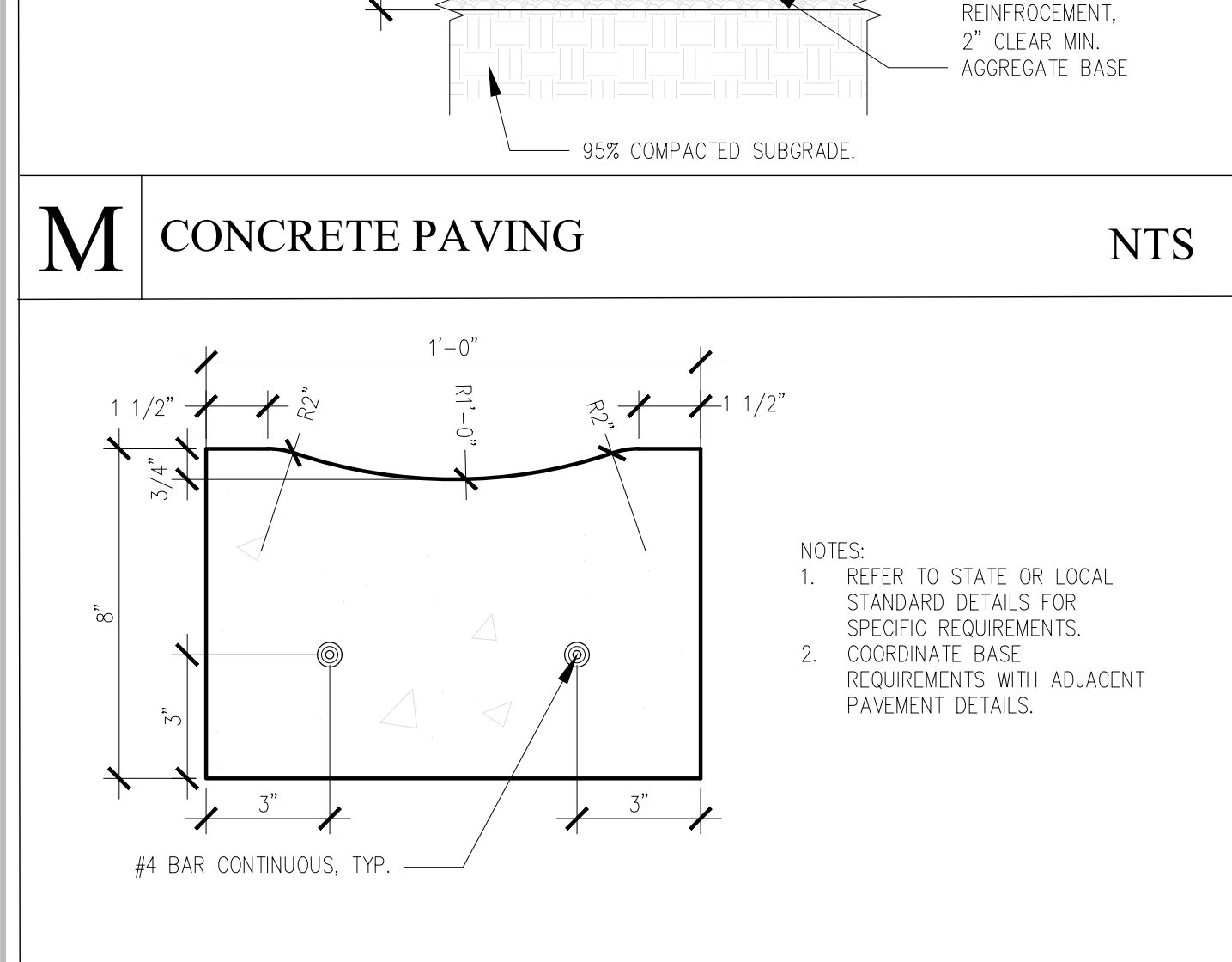
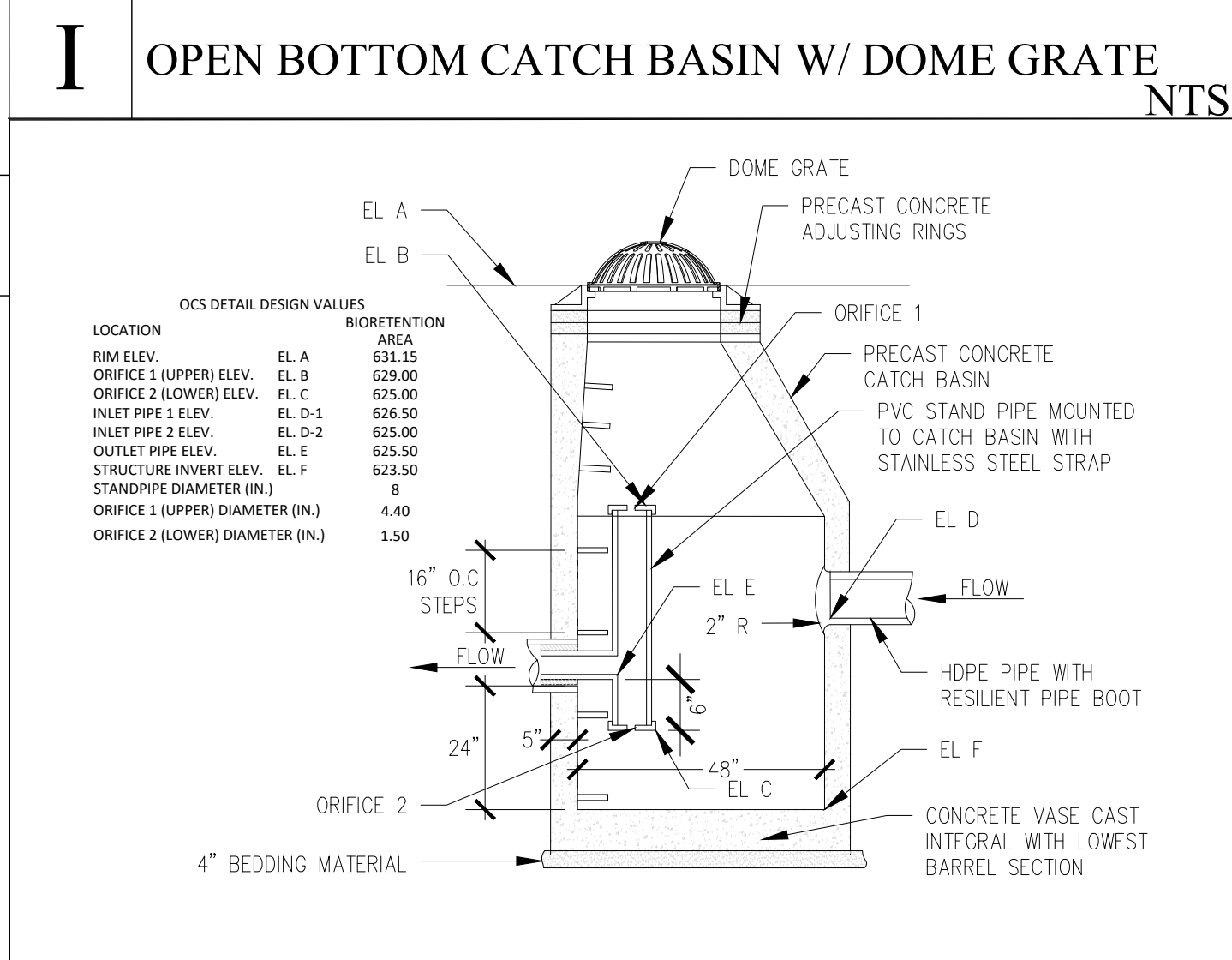
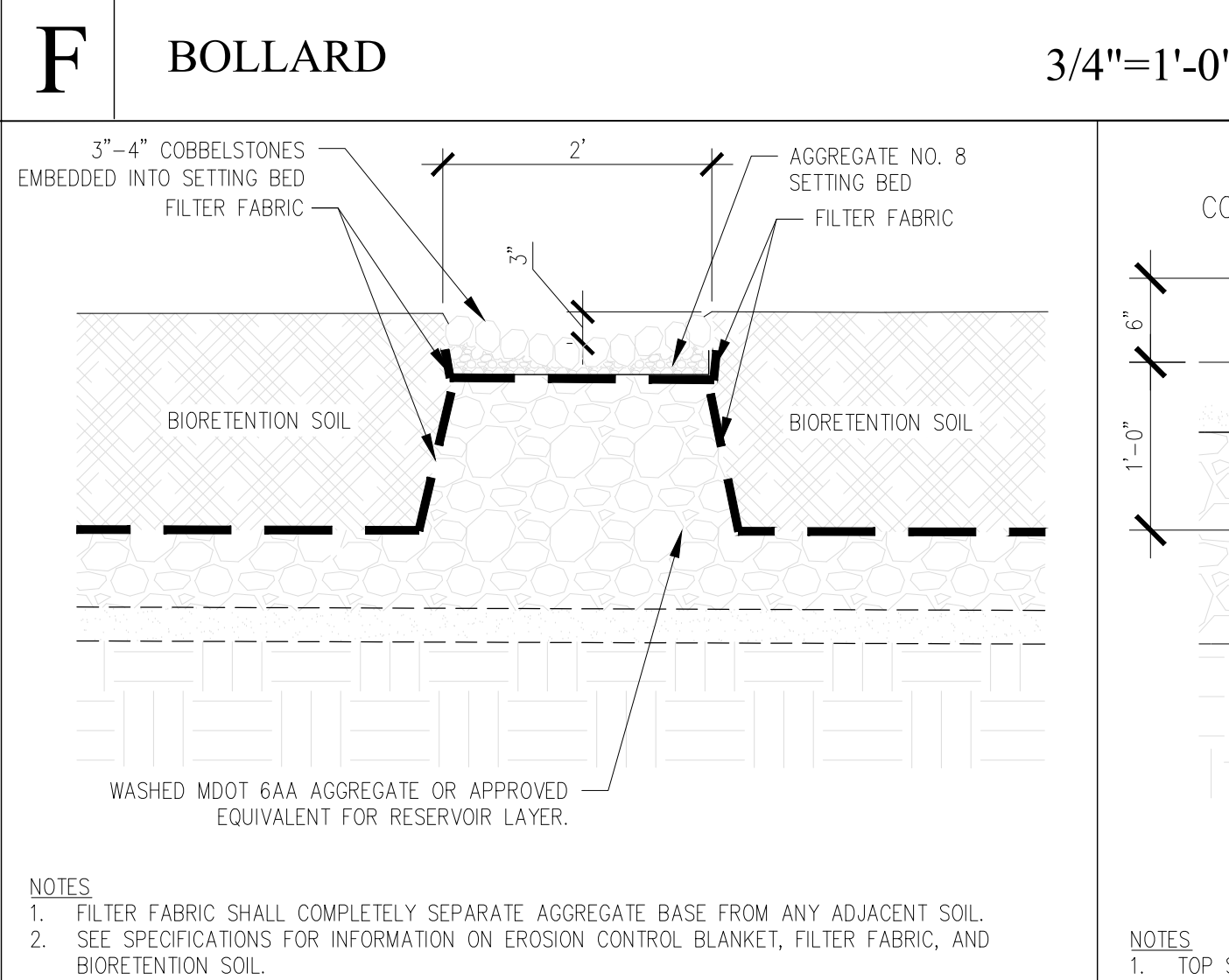
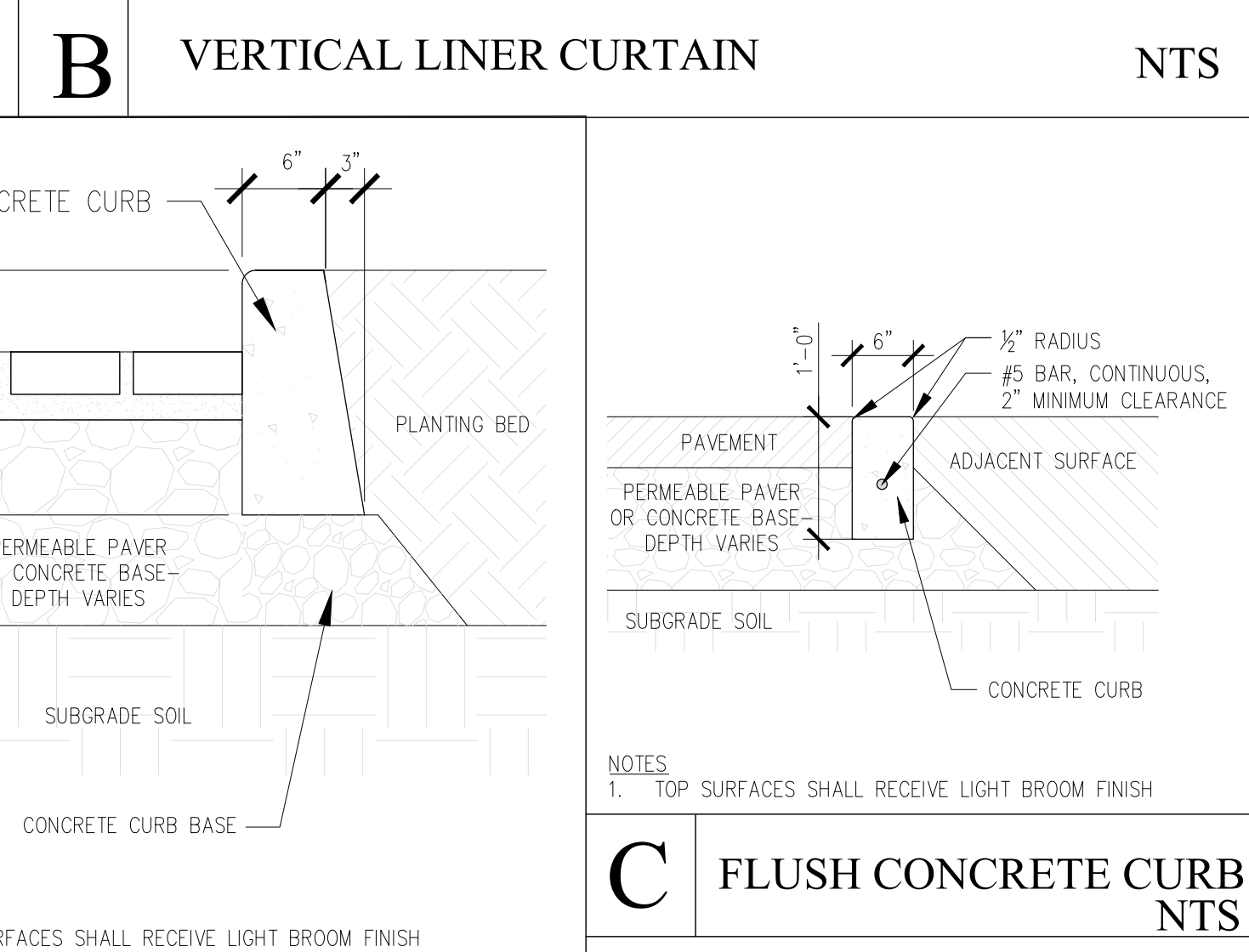
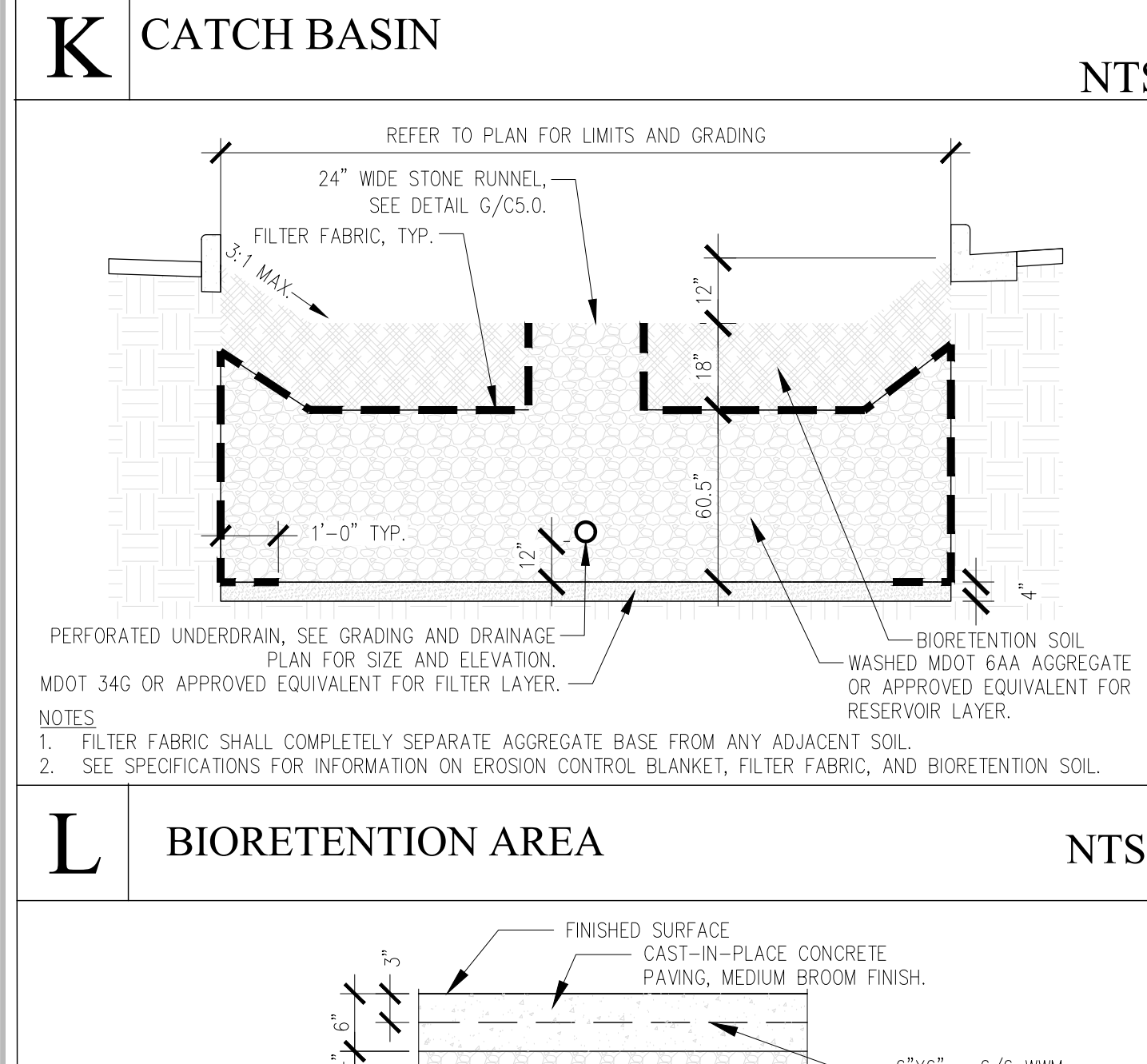
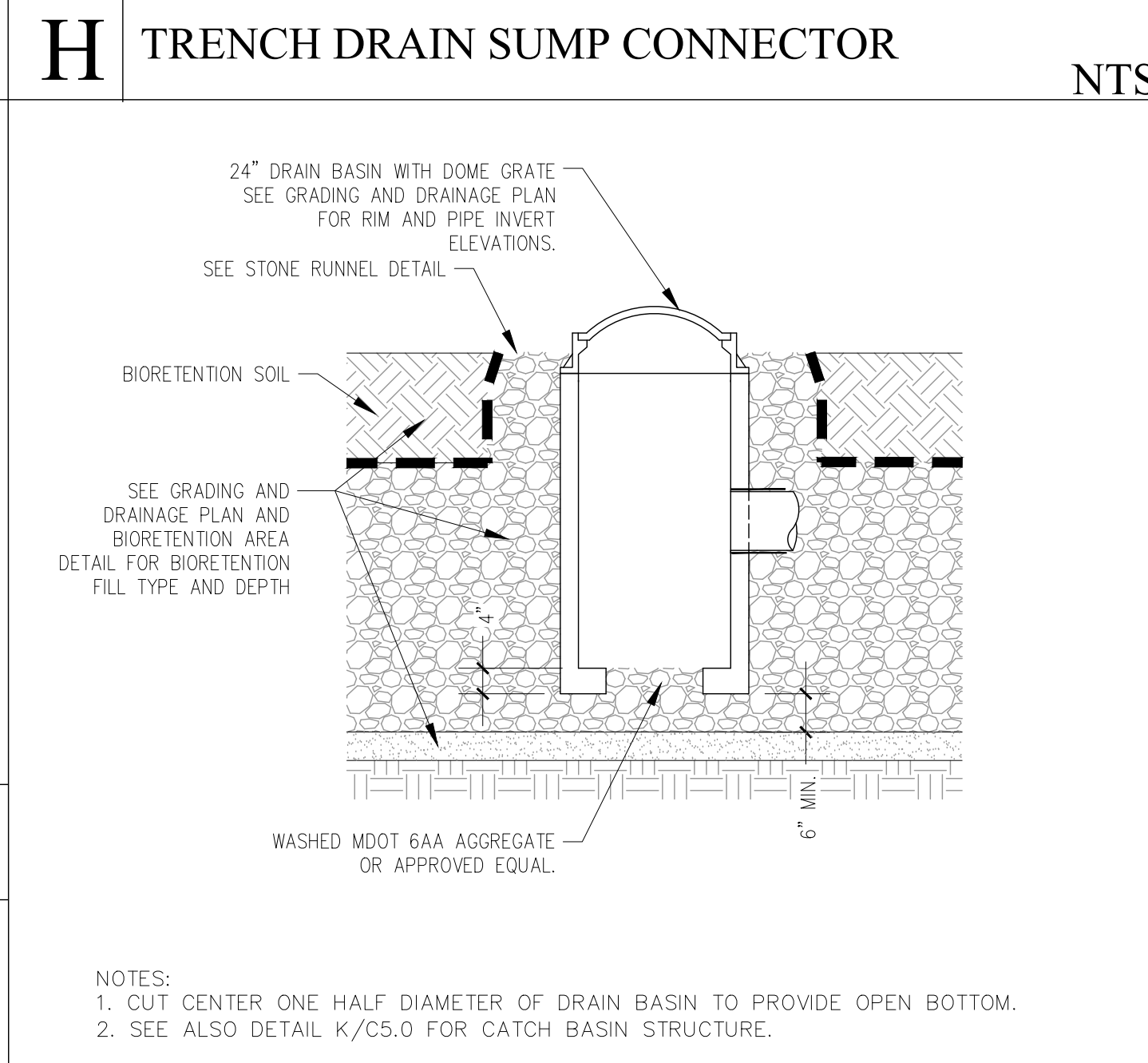
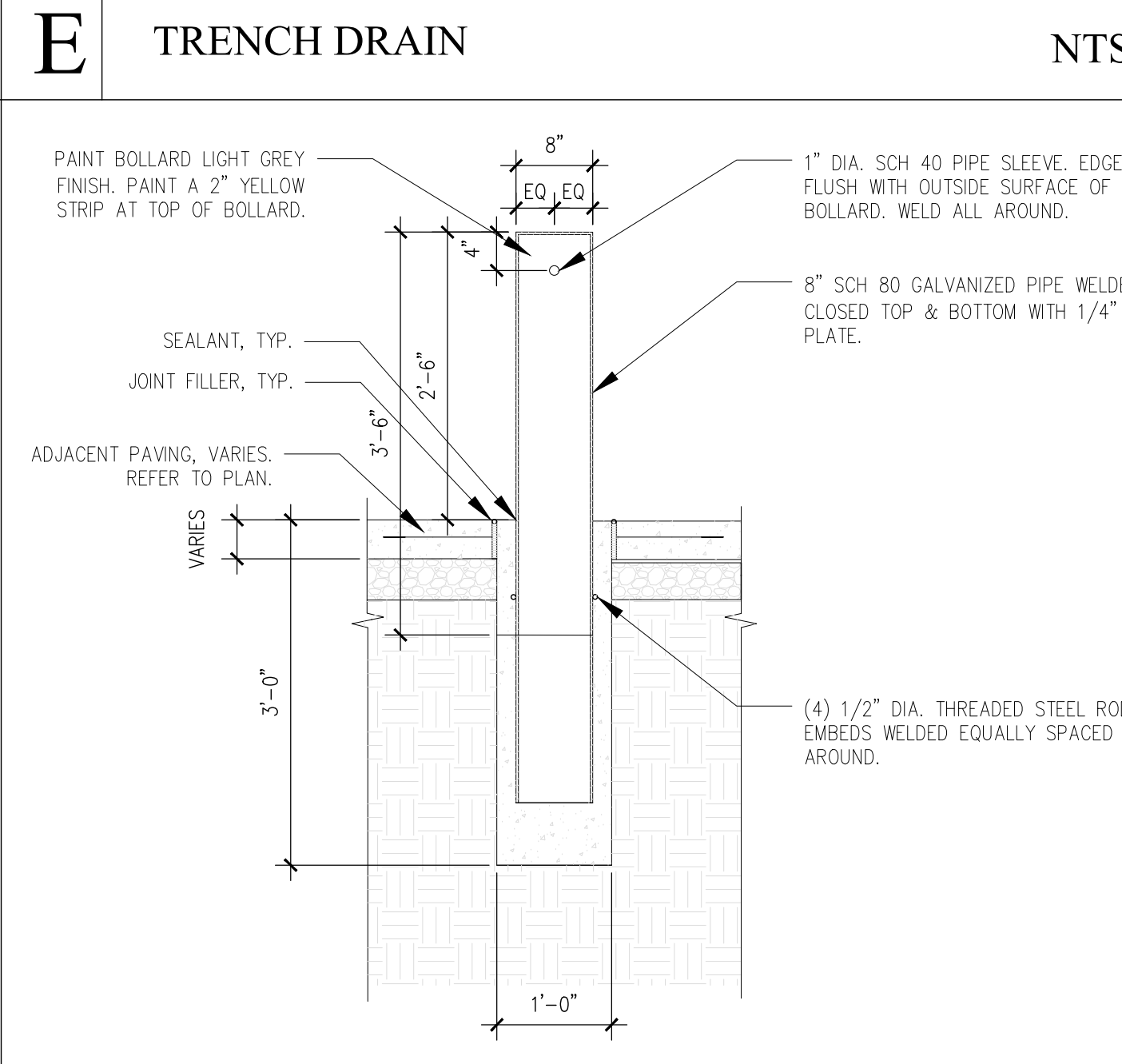
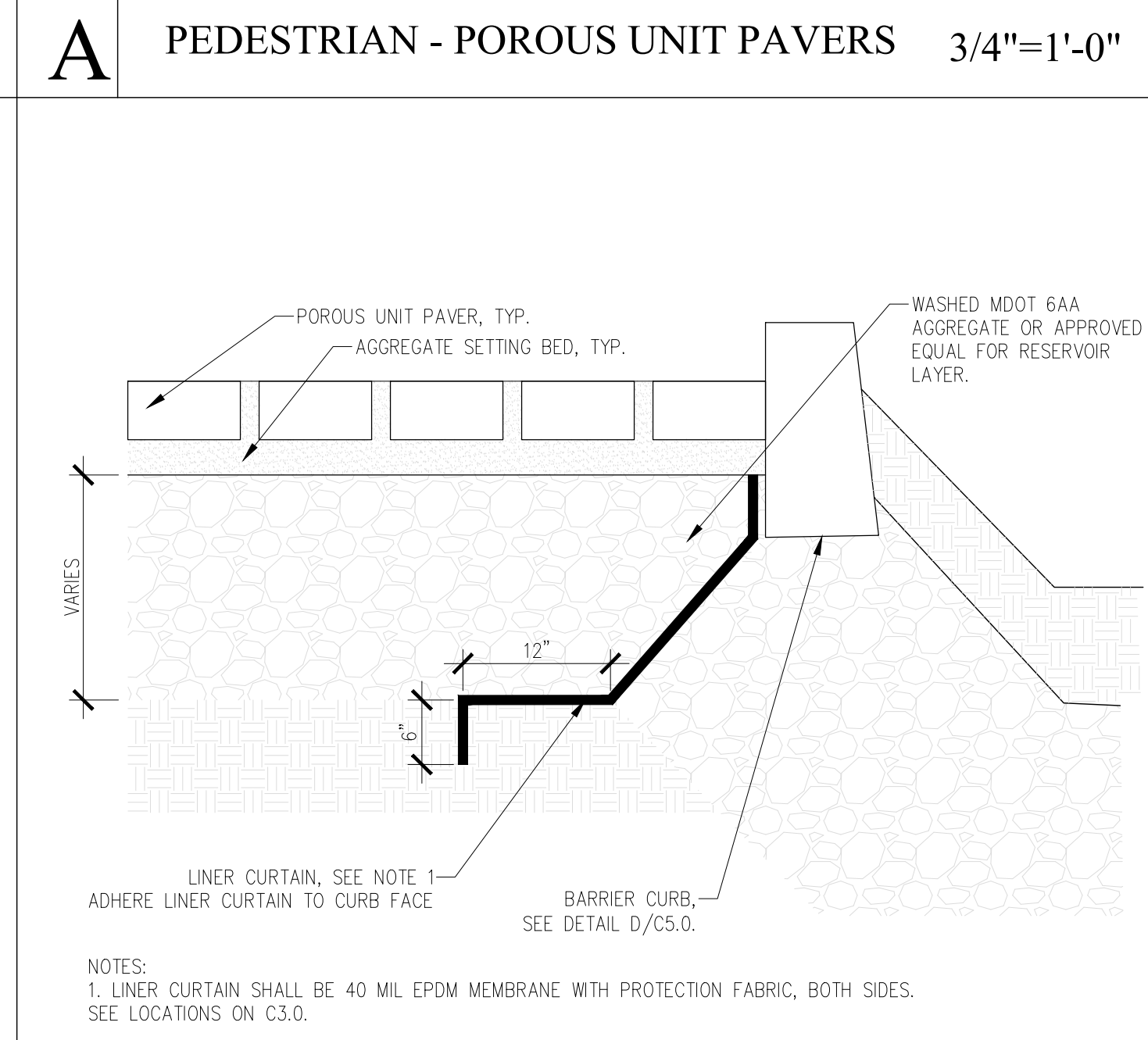
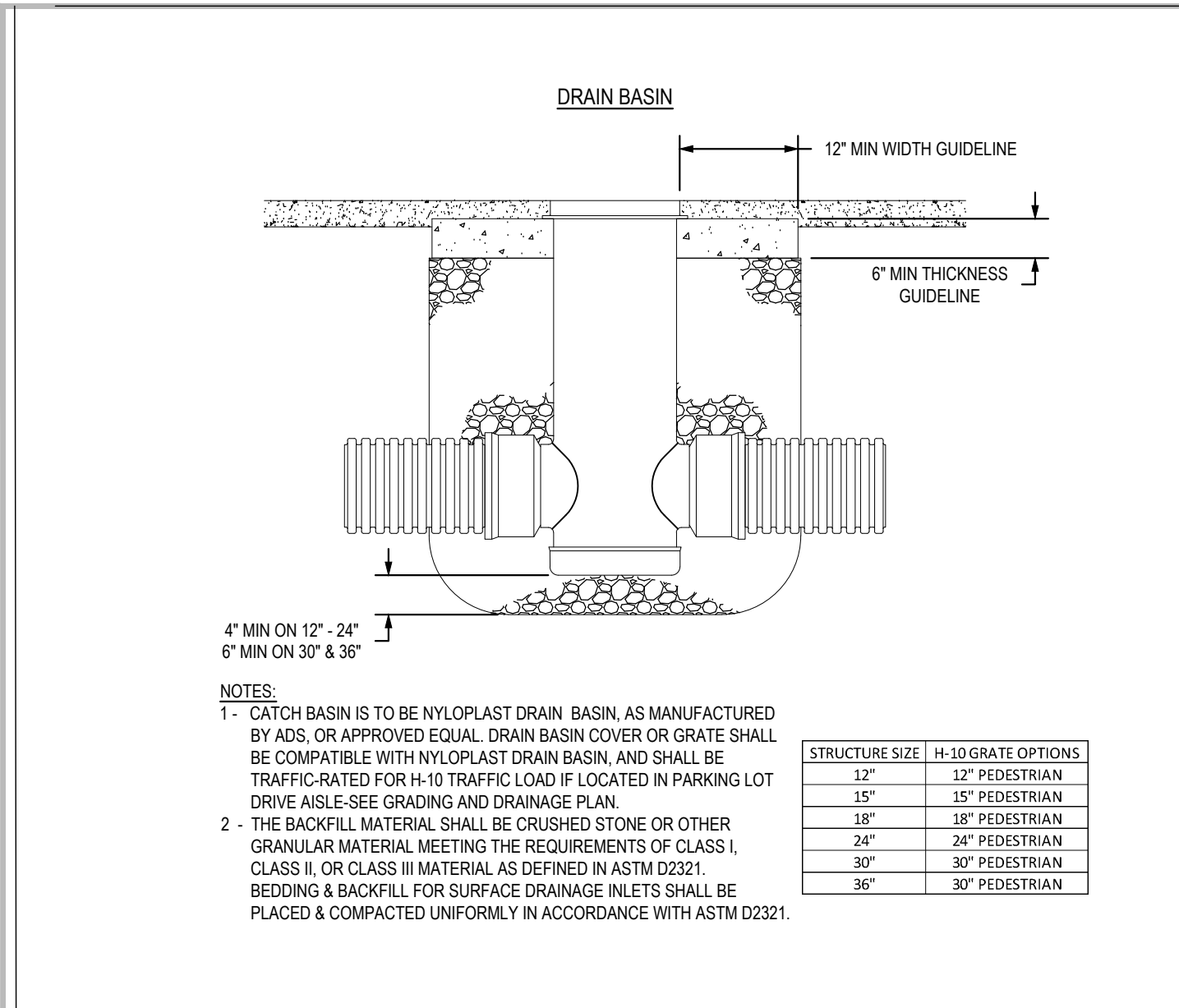
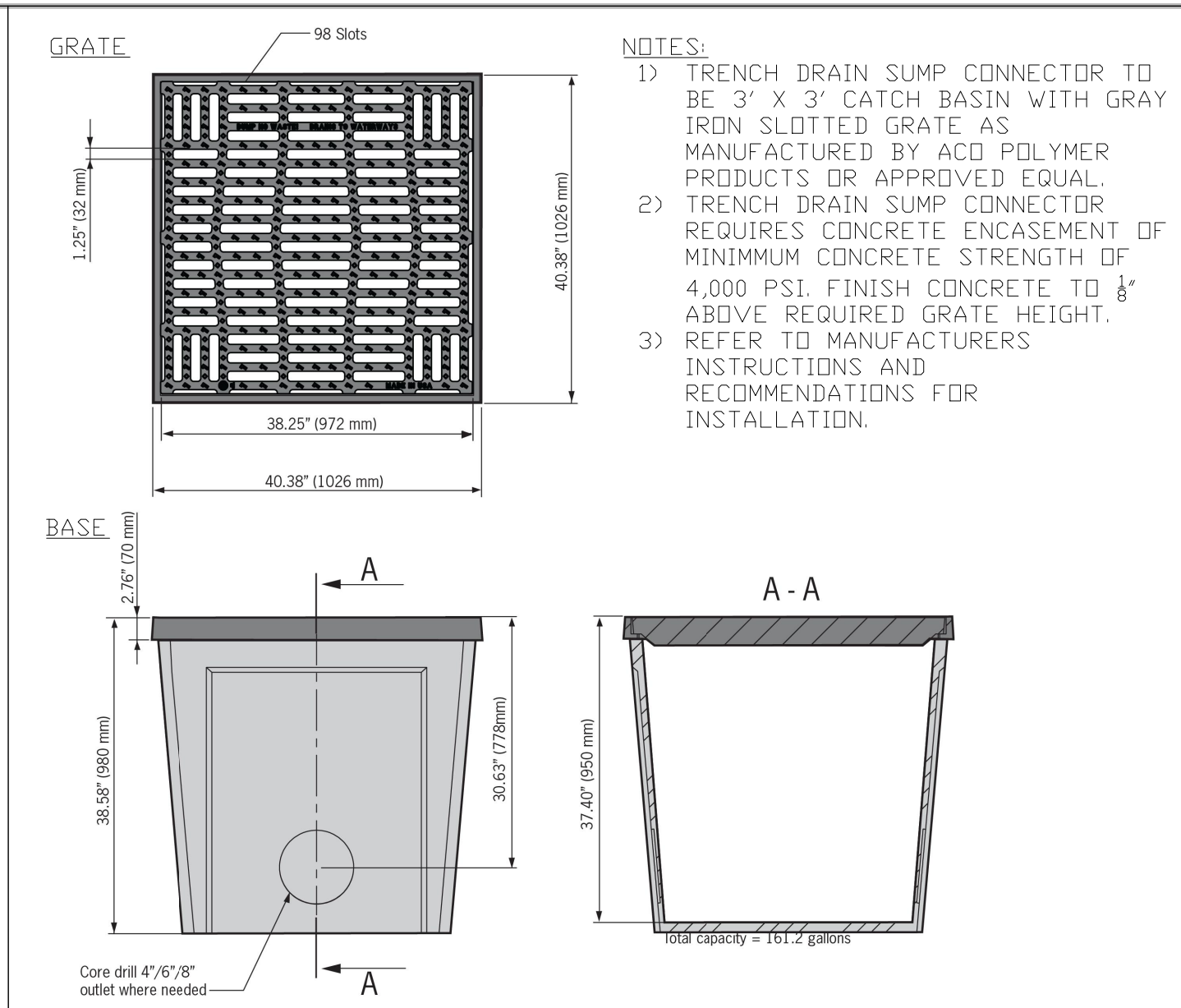
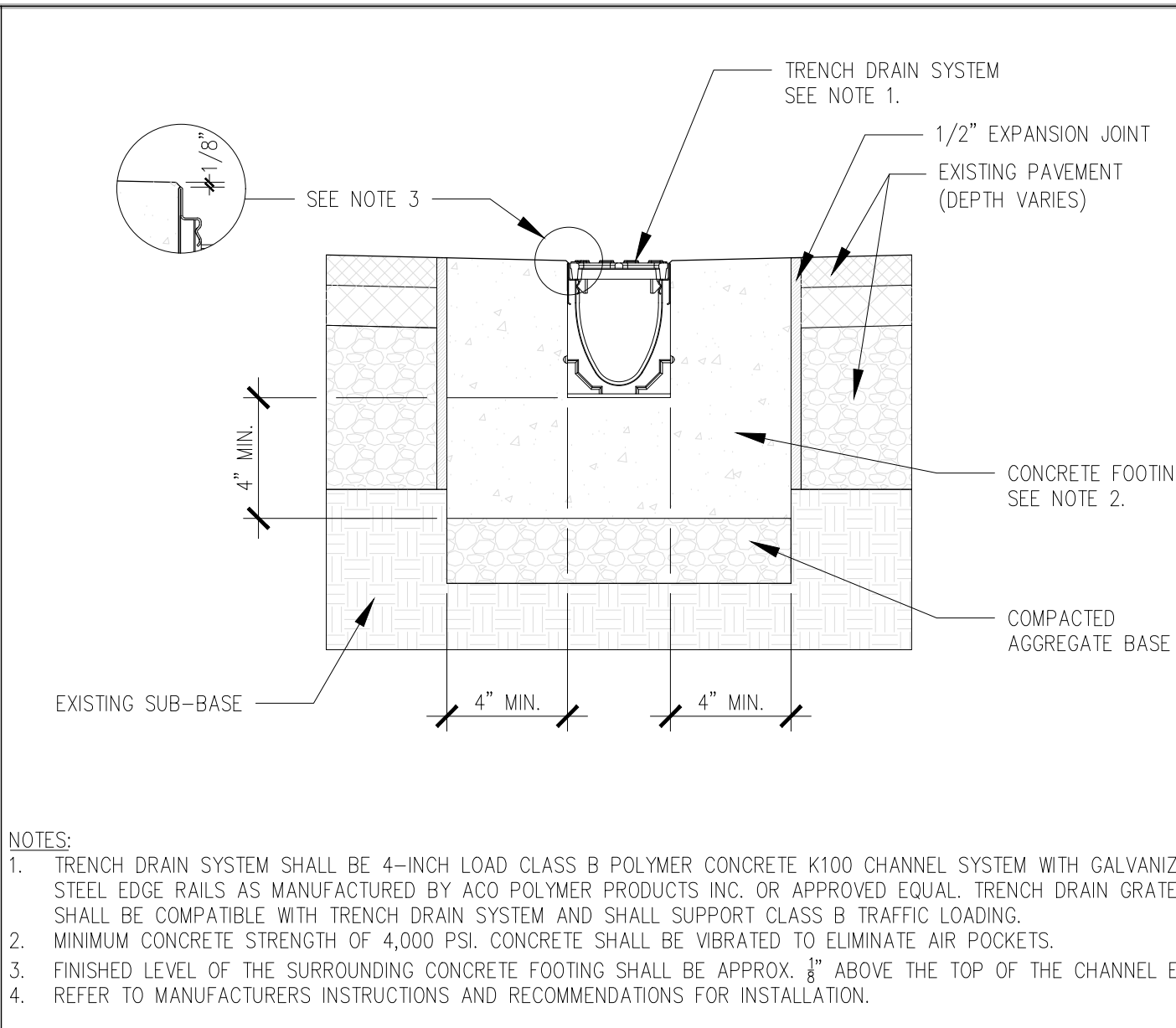
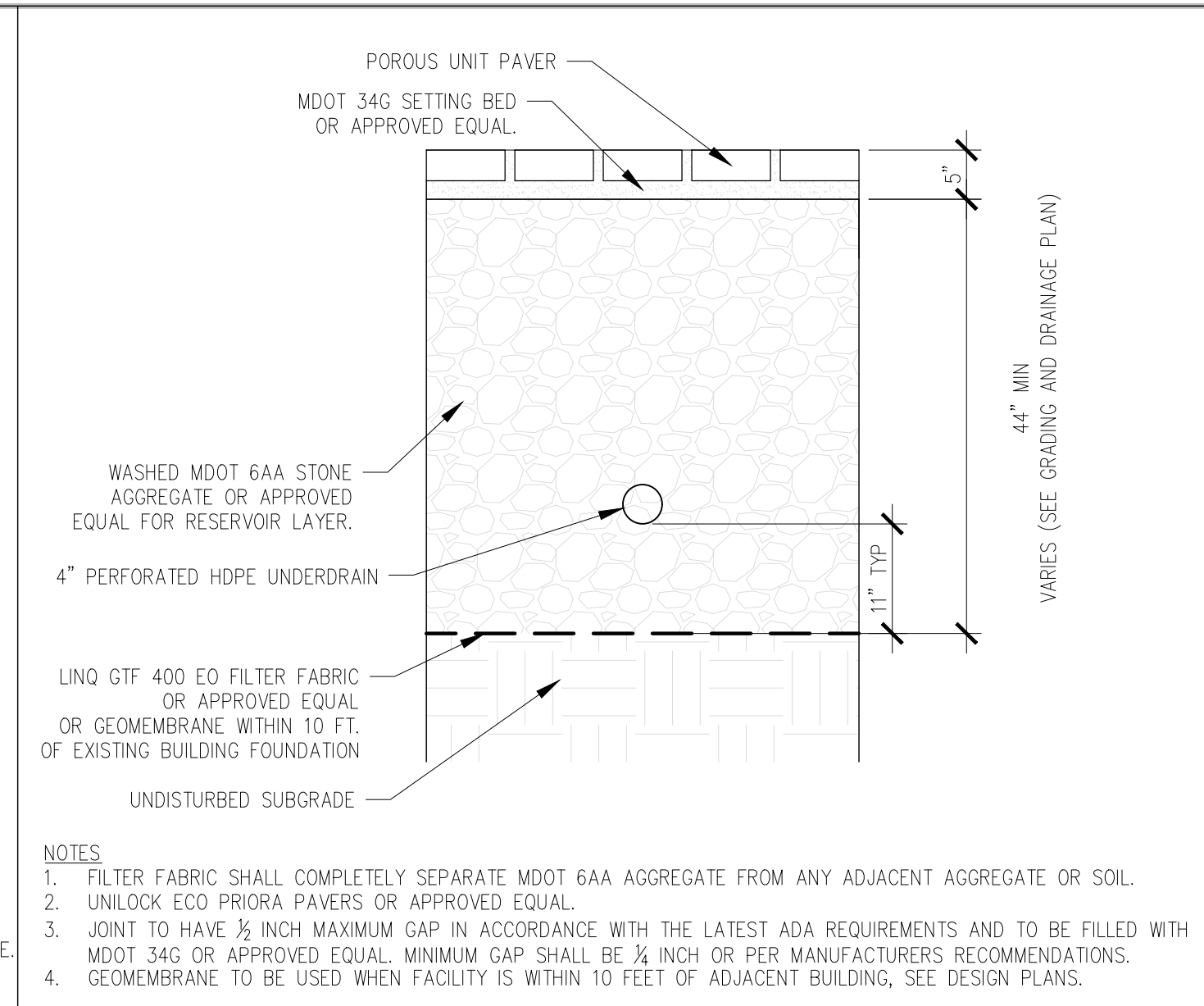
PERMIT REVISIONS	08-20-24
PERMIT REVISIONS	06-05-24
ISSUED FOR PERMIT	10-15-21
ISSUED FOR BIDS	06-24-20
OWNER REVIEW	05-28-20
PROGRESS SET	05-14-20
PRELIMINARY	11-07-19

240264  
 ECT PROJECT NUMBER  
 PAM DESIGNED BY TP CHECKED BY  
 PAM DRAWN BY TP APPROVED BY

**CONSTRUCTION DETAILS**

**ALTERNATIVE ENGINEERED DESIGN**

SHEET NUMBER  
**C5.0**



*PAM*  
 Pearl A. May,  
 M.P.E. No.  
 6201313414  
 Date  
 06-05-2024



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**THIS PLAN IS NOT FOR CONSTRUCTION**

**Grandmont Rosedale GSI Lot**  
 Grandmont Rosedale Development Corporation

19526, 19534, 19540, 19550, 19560 Grand River Avenue  
 Detroit, MI

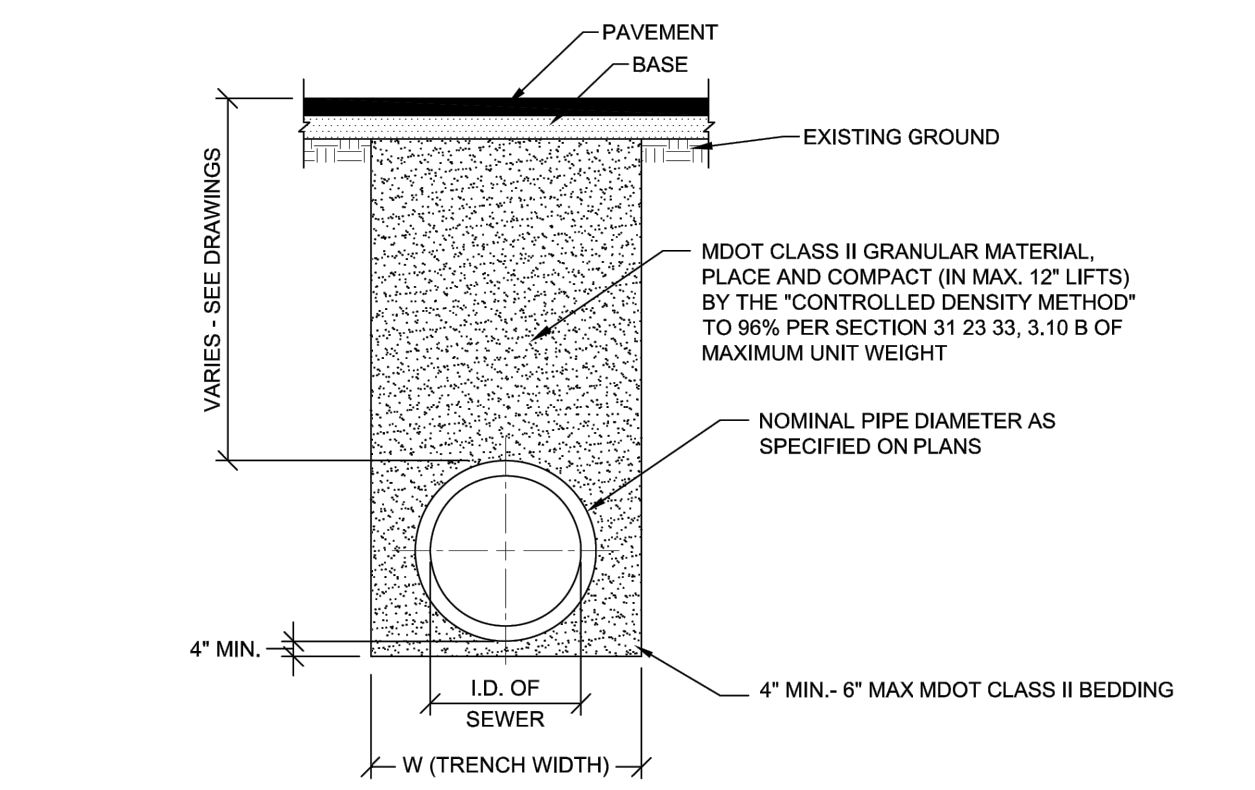
PERMIT REVISIONS	08-20-24
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240264 ECT PROJECT NUMBER	
PAM DESIGNED BY	TP CHECKED BY
PAM DRAWN BY	TP APPROVED BY

**CONSTRUCTION DETAILS**

**ALTERNATIVE ENGINEERED DESIGN**

SHEET NUMBER  
**C5.1**



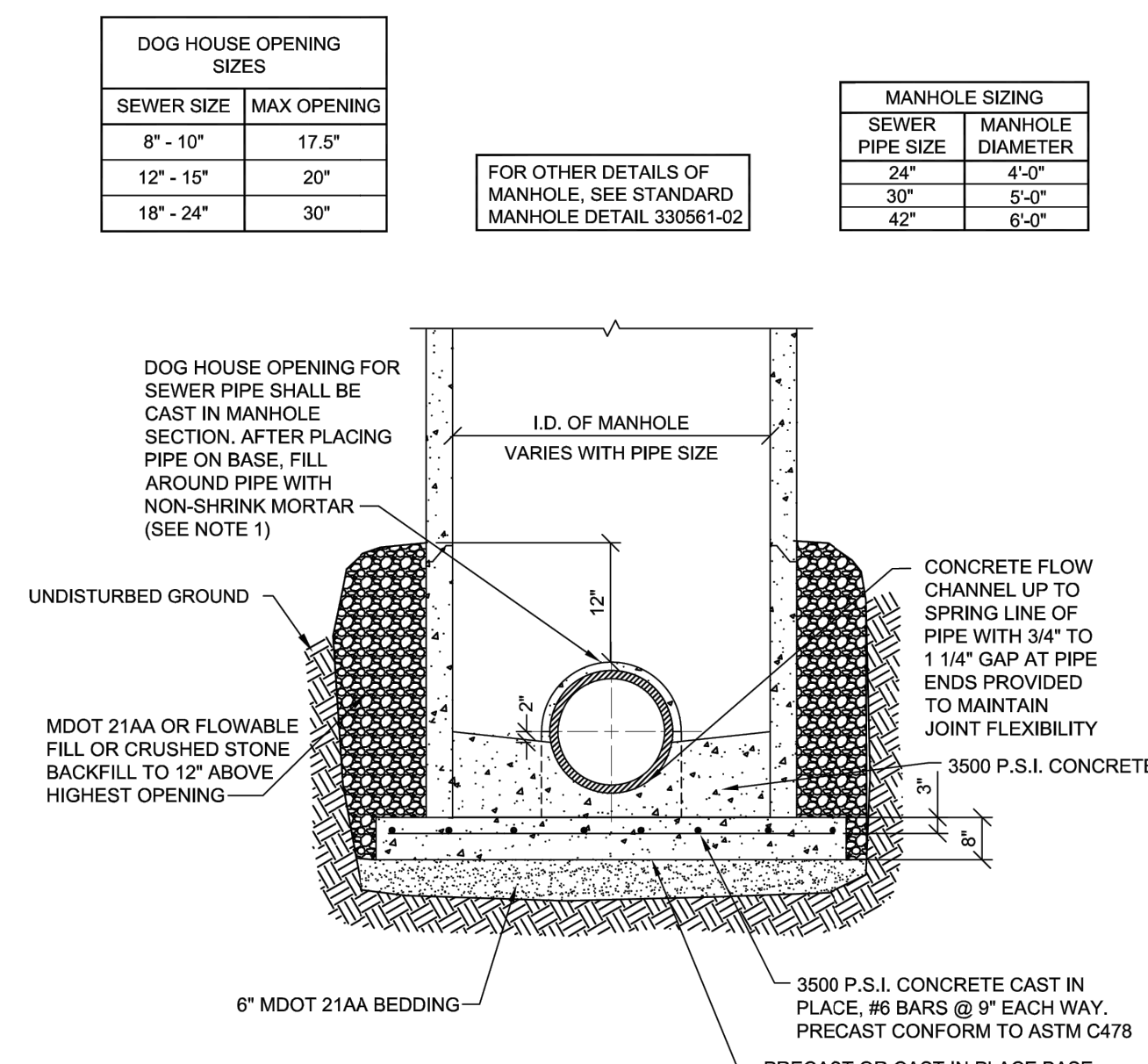
I.D. PIPE SIZE (INCHES)	18 OR LESS	21	24	30	36	42	48	54	60	66	72
MAXIMUM TRENCH WIDTH (FEET)	5.00	5.75	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00

W (TRENCH WIDTH) = 5 FEET, WHEN PIPE I.D. IS 18" OR LESS  
 W (TRENCH WIDTH) = I.D. + 4 FEET, WHEN PIPE I.D. IS GREATER THAN 18"

- NOTES:
- NO EXTRA PAYMENT WILL BE MADE FOR BASE AND PAVEMENT RESTORATION ITEMS DUE TO ADDITIONAL EXCAVATION BEYOND THE MAXIMUM TRENCH WIDTH LISTED ABOVE.
  - REFER TO PAVEMENT RESTORATION DETAILS FOR BASE AND PAVEMENT WIDTH.
  - TRENCHING SHALL BE PER OSHA 29 CFR, SUBPART P AND SHALL BE PERFORMED TO MINIMIZE THE SURFACE DISRUPTION.

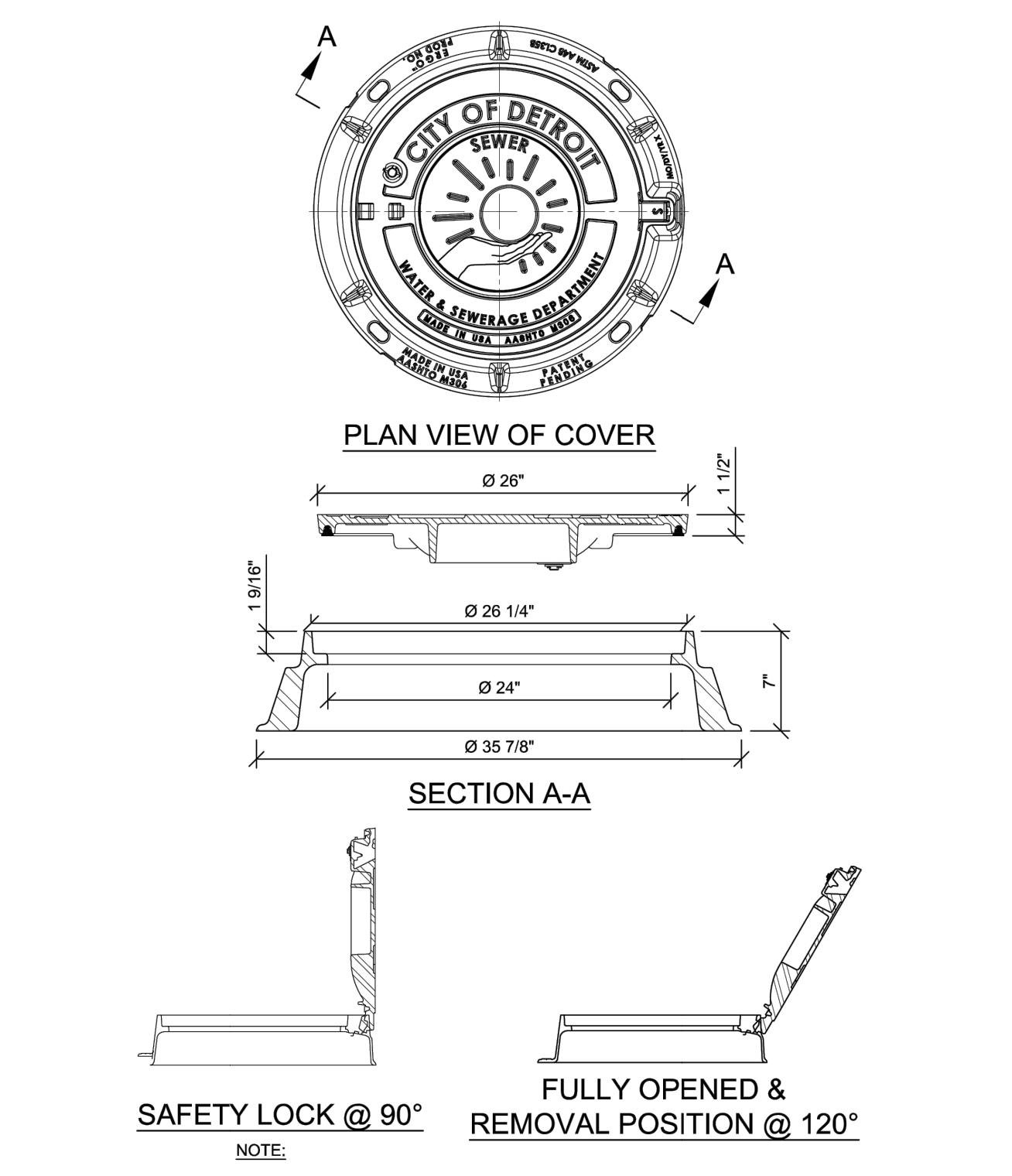
**STANDARD TRENCH DETAIL FOR SEWER UNDER ROAD BED, PARKING LOTS, SIDEWALKS, DRIVEWAYS, CURBS, GRAVEL ROADS AND ALLEYS**

**S STANDARD UTILITY TRENCH DETAIL**

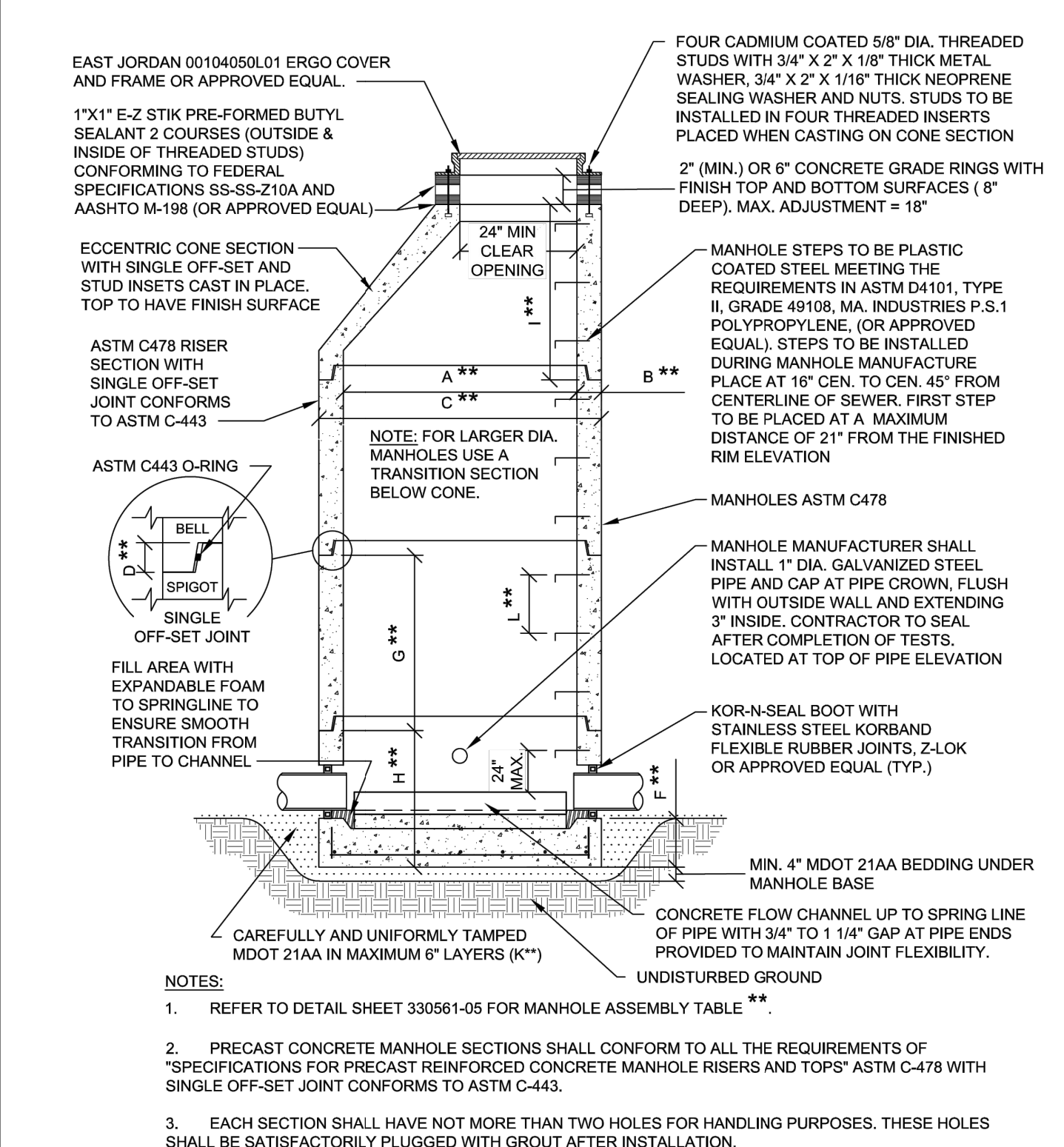


- NOTE:
- DOG HOUSE MAY BE USED OVER EXISTING SEWER PIPE. NEW PIPE OPENINGS SHALL BE MANUFACTURED WITH KOR-N-SEAL BOOT AND STAINLESS STEEL KOR-BAND FLEXIBLE RUBBER JOINTS OR APPROVED EQUAL.

**Q STANDARD DWSD MANHOLE OVER EXISTING SEWER** NTS

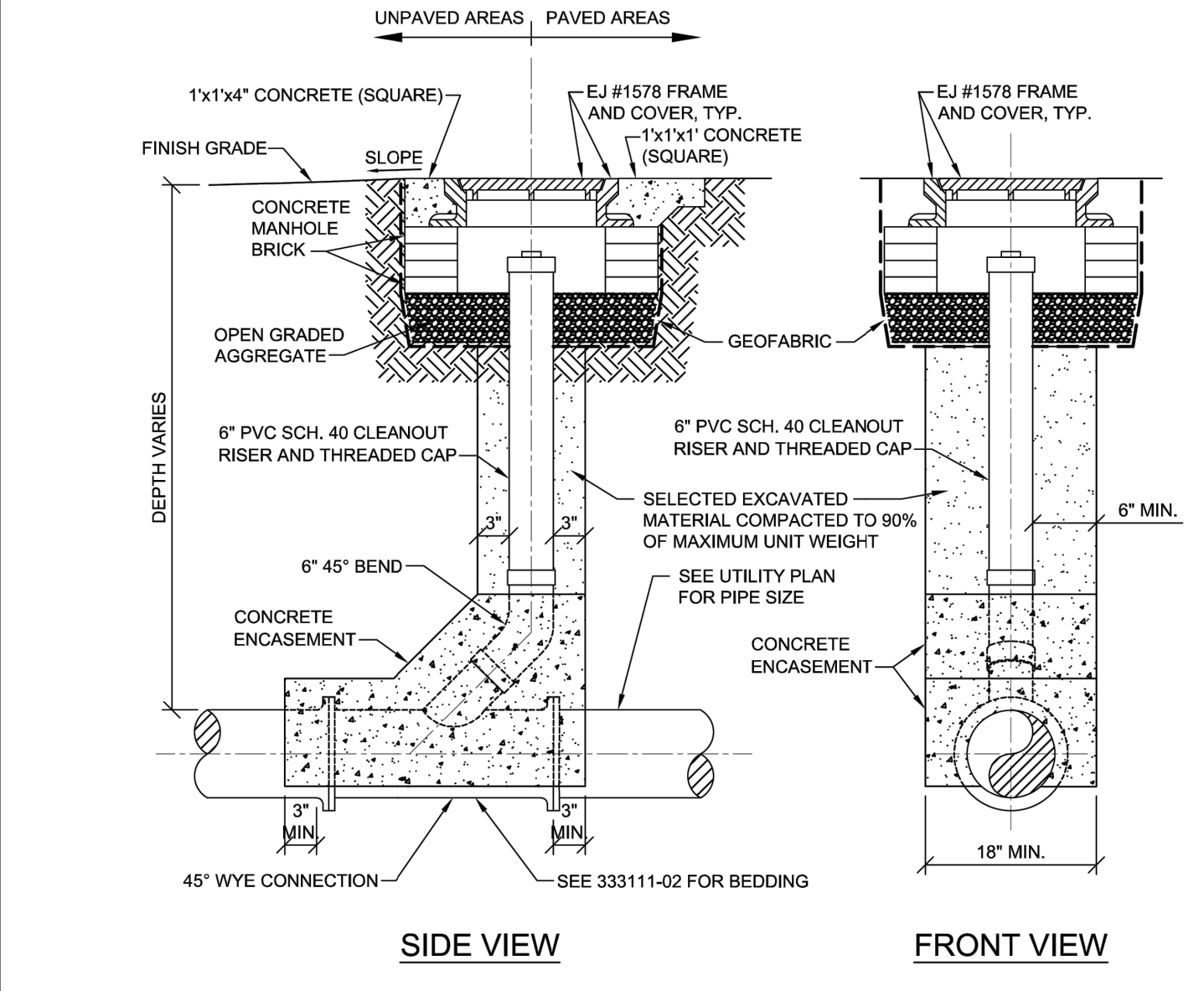


**R STANDARD DWSD MANHOLE FRAME AND COVER** NTS

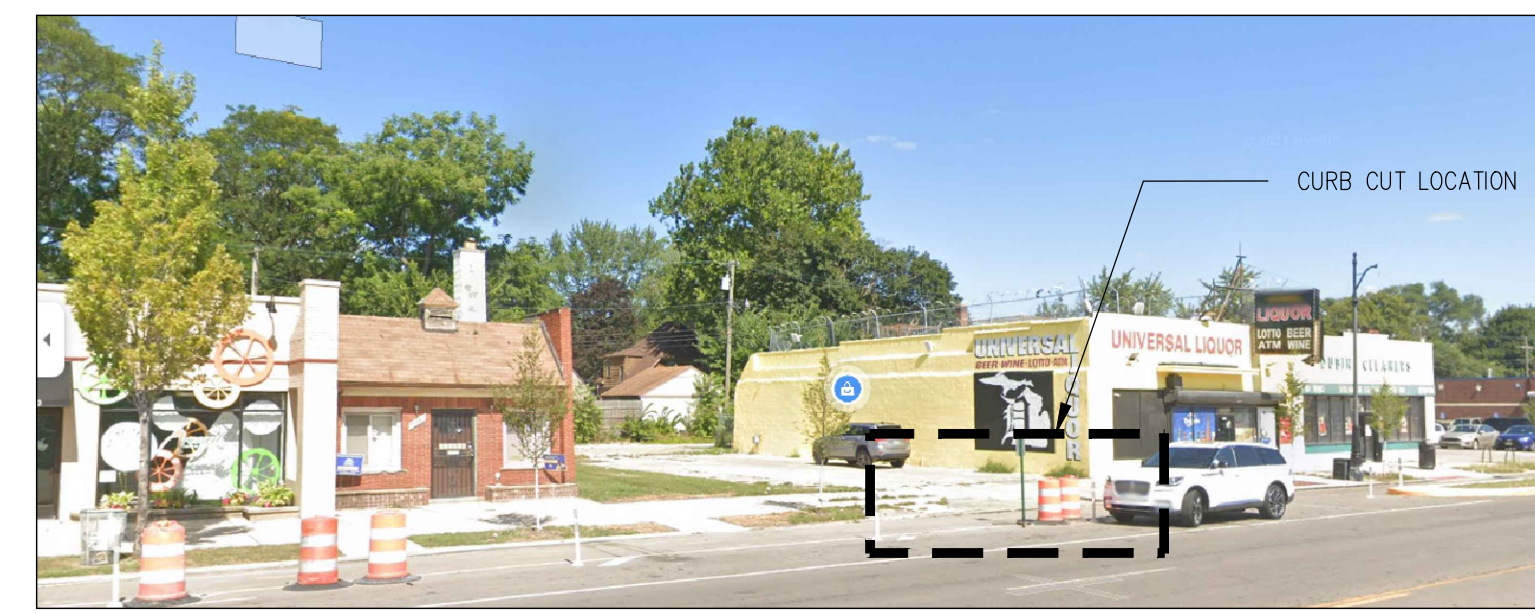


**O STANDARD DWSD PRECAST MANHOLE** NTS

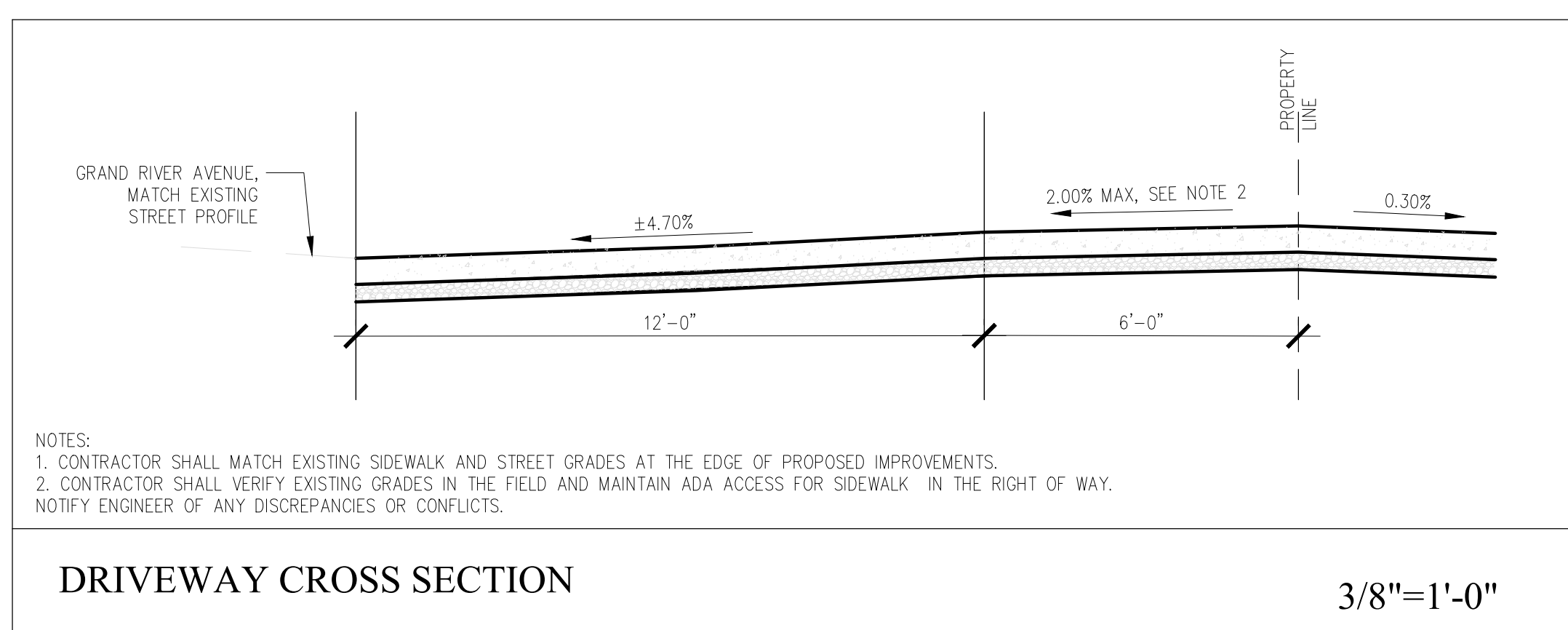
**P STANDARD DWSD SEWER CLEANOUT** NTS



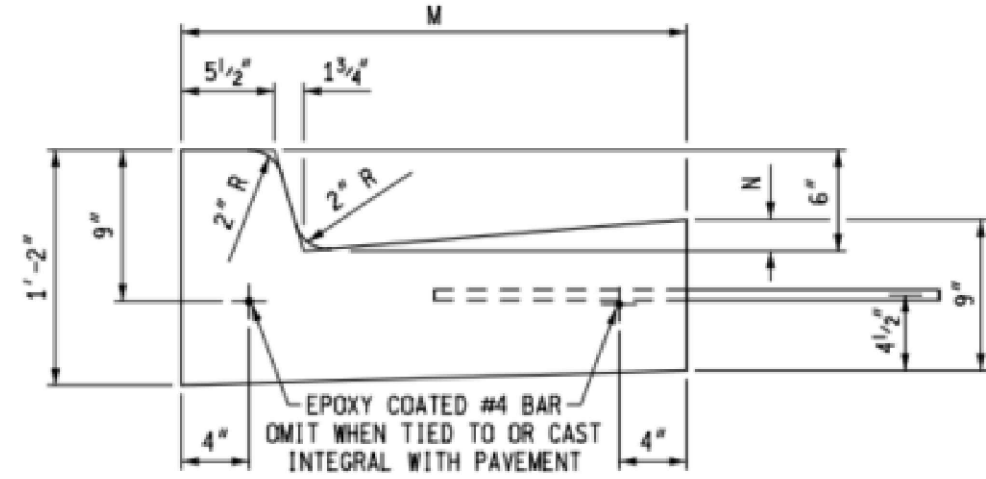
NOTE: THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT. THE WORK SHALL BE PERFORMED IN COMPLETE CONFORMANCE WITH THE CURRENT DWSD STANDARD SPECIFICATIONS AND DETAILS.



**T PHOTO LOCATION OF CURB CUT**



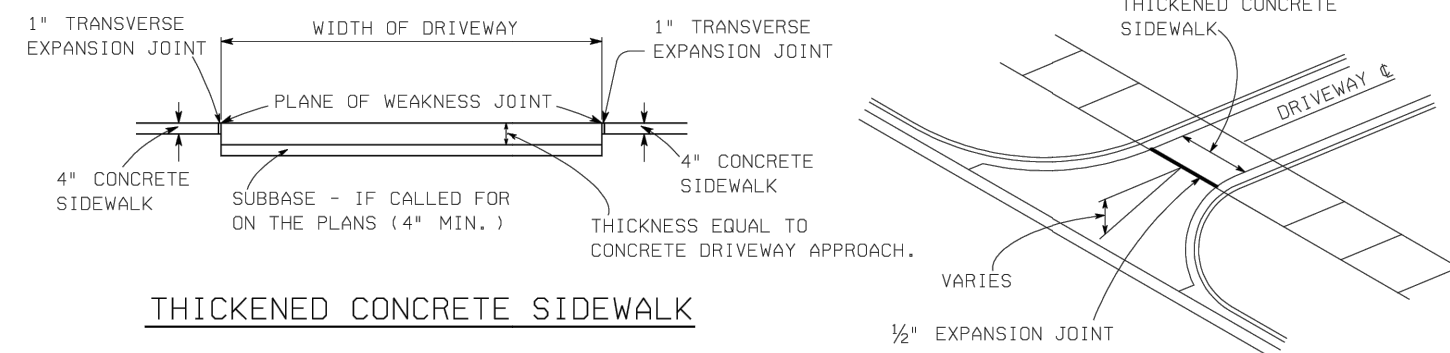
**U DRIVEWAY CROSS SECTION DETAIL**



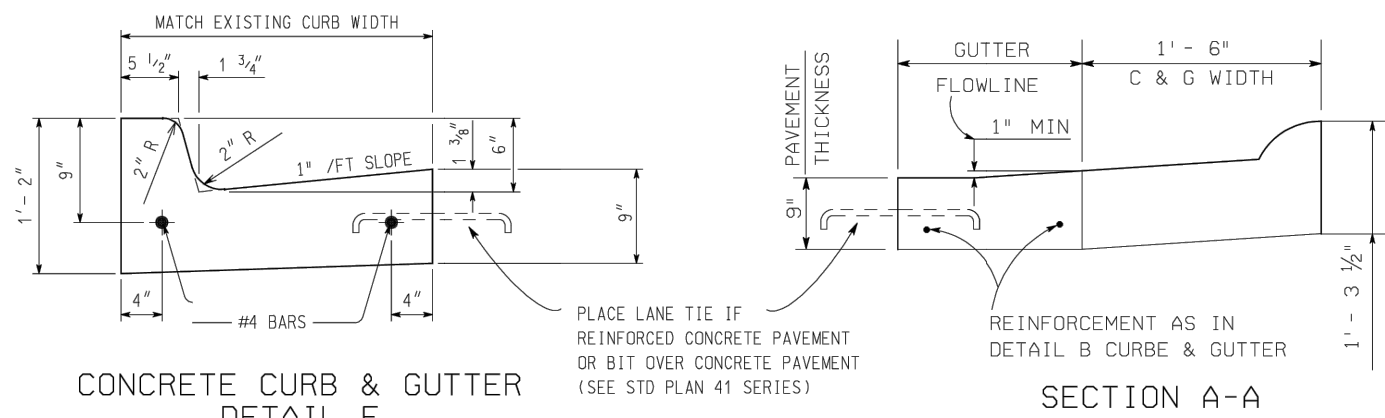
DETAIL	DIMENSION		LANE TIES	CONCRETE CYD / LFT
	M	N		
F1	1'-6"	1/8"	AS SHOWN	0.0484
F2	1'-6"	1/8"	OMITTED	0.0484
F3	2'-0"	1 1/8"	AS SHOWN	0.0610
F4	2'-0"	1 1/8"	OMITTED	0.0610
F5	2'-6"	1 1/8"	AS SHOWN	0.0737
F6	2'-6"	1 1/8"	OMITTED	0.0737

MICHIGAN DOT STANDARD CONCRETE CURB AND GUTTER R-30-G

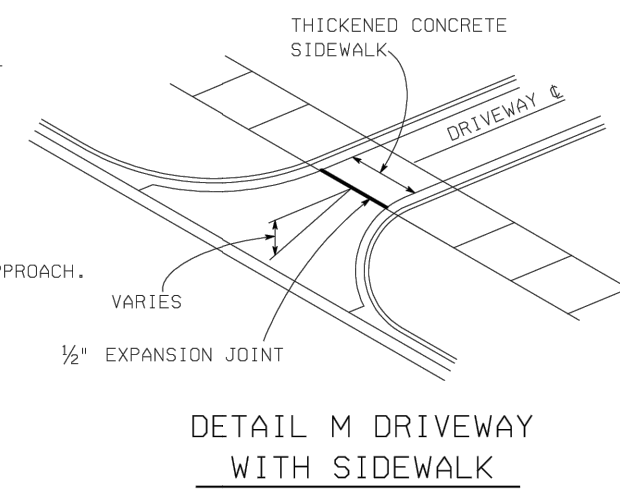
- NOTES
- ALL EXPOSED CONCRETE FACES SHALL RECEIVE A SF 3.0, HAND-RUBBED FINISH IMMEDIATELY AFTER FORMS ARE REMOVED PER ACI 301. TOP SURFACES SHALL RECEIVE LIGHT BROOM FINISH



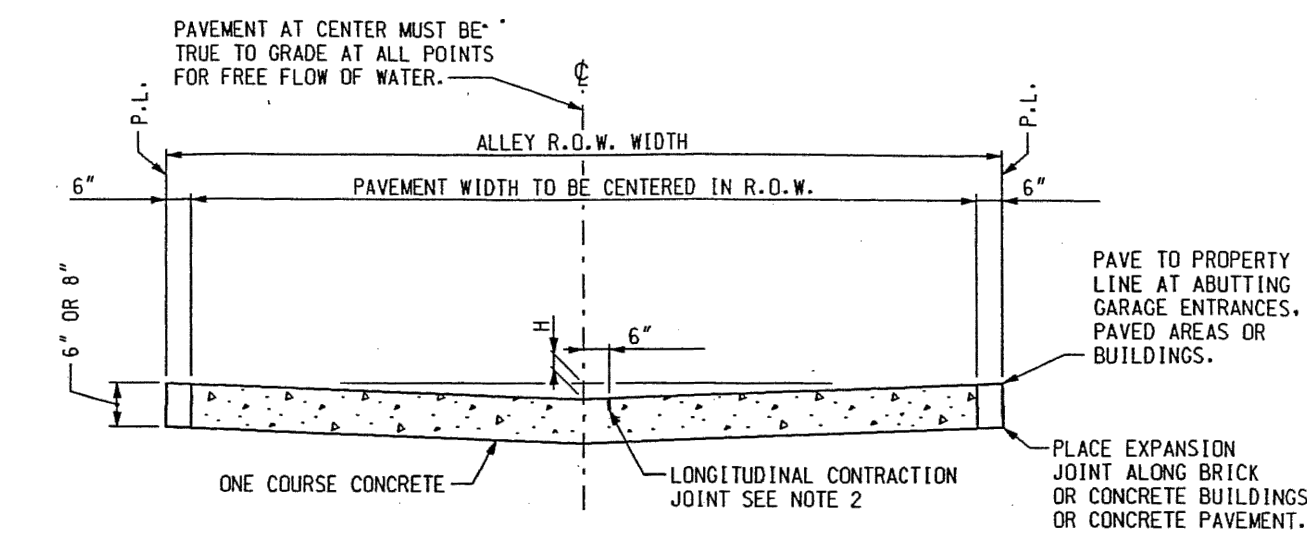
THICKENED CONCRETE SIDEWALK



CONCRETE CURB & GUTTER DETAIL F



DETAIL M DRIVEWAY WITH SIDEWALK



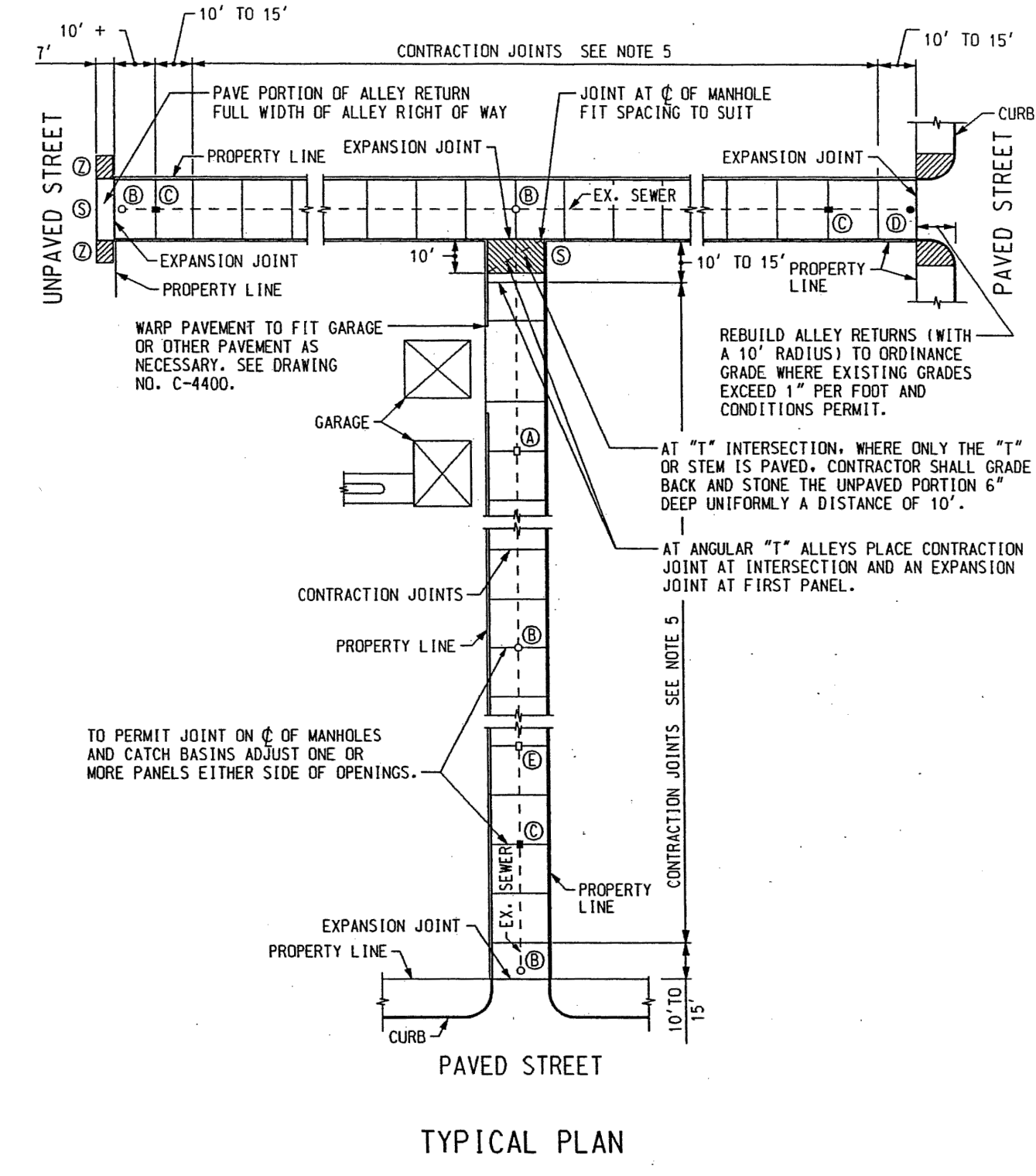
TYPICAL SECTION

ELEMENTS		
ALLEY WIDTH	PAV'T R.O.W.	H
19'	20'	5"
17'	18'	4"
15'	16'	3"

- NOTES:
- PLACE EXPANSION JOINTS AT ALL STREET PROPERTY LINES AND ALLEY INTERSECTIONS.
  - LONGITUDINAL CONTRACTION JOINT TO BE CONSTRUCTED IN PAVEMENTS 17' AND OVER IN WIDTH UNLESS OTHERWISE NOTED ON PAVING PLAN.
  - MAXIMUM SPACING BETWEEN EXPANSION JOINTS SHOULD NOT EXCEED 600 FEET.
  - IF STREET IS ECONOMY PAVED THE AREA BETWEEN THE WALK AND EDGE OF PAVEMENT SHALL BE PAVED WITH 6" STONE BASE PLUS 2" OF COLD PATCH MATERIAL. THE WALK FLAG SHALL BE 6" THICK.
  - CONTRACTION JOINTS SHALL BE SPACED AT 15' C. TO C. FOR SLAG AGGREGATE AND 8.0 m C. TO C. FOR NATURAL AGGREGATE.

**CONSTRUCTION SYMBOLS LEGEND**

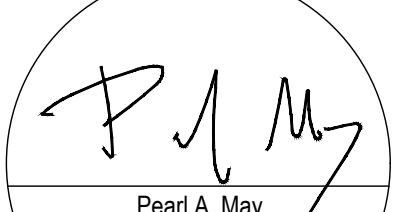
- EXISTING SEWER MANHOLE
- PROPOSED SEWER MANHOLE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- Ⓐ ADJUST EXISTING CATCH BASIN
- Ⓑ ADJUST EXISTING MANHOLE
- Ⓒ CONSTRUCT CATCH BASIN
- Ⓓ CONSTRUCT MANHOLE
- Ⓔ ABANDON EXISTING CATCH BASIN
- ⑤ STONING AND GRADING
- ② CONSTRUCT STANDARD 6" CONCRETE SIDEWALK




TYPICAL PLAN

**ECT** Environmental Consulting & Technology, Inc.

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:



Pearl A. May,  
M.P.E. No. 6201313414  
06-05-2024  
Date



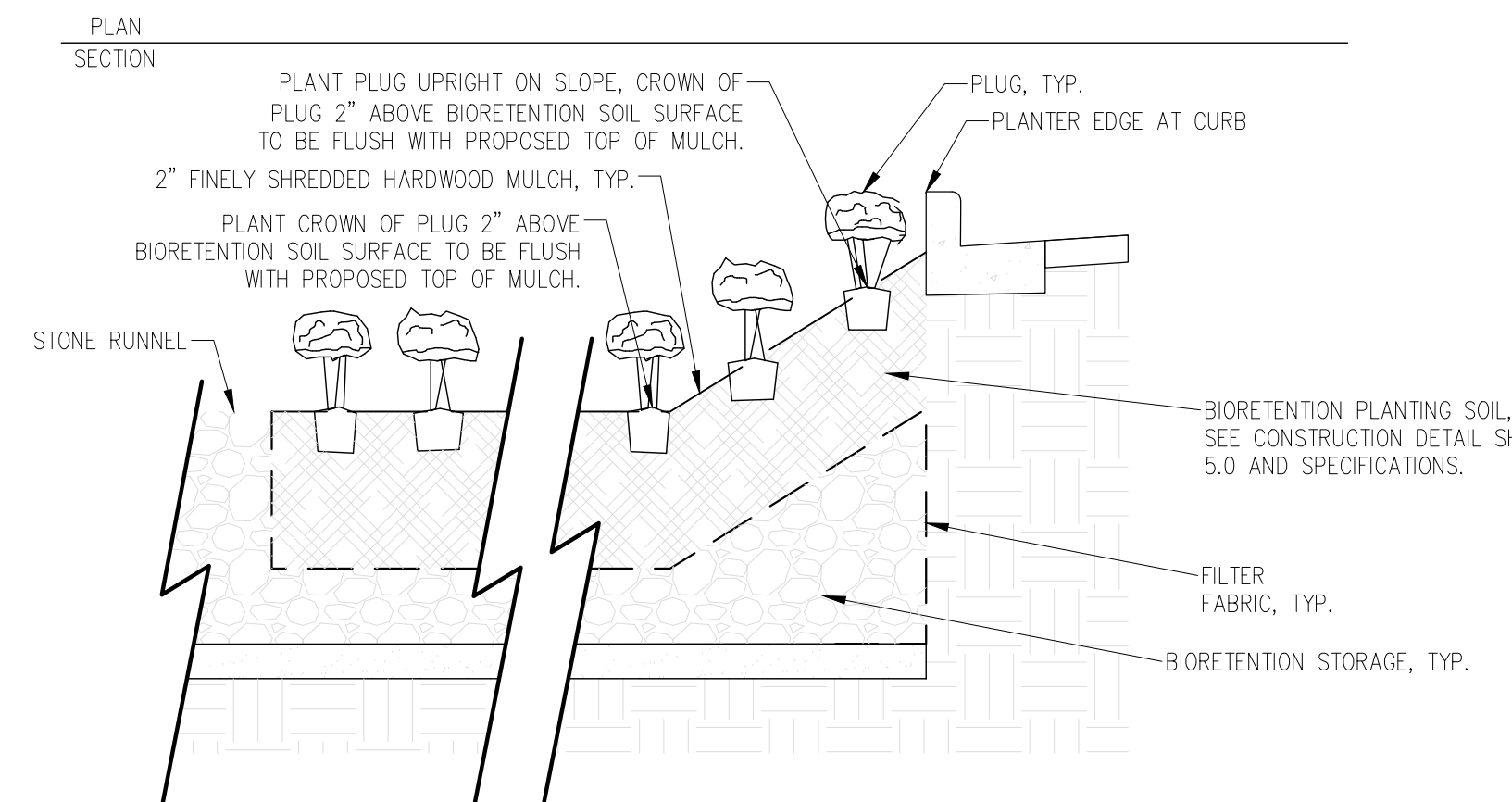
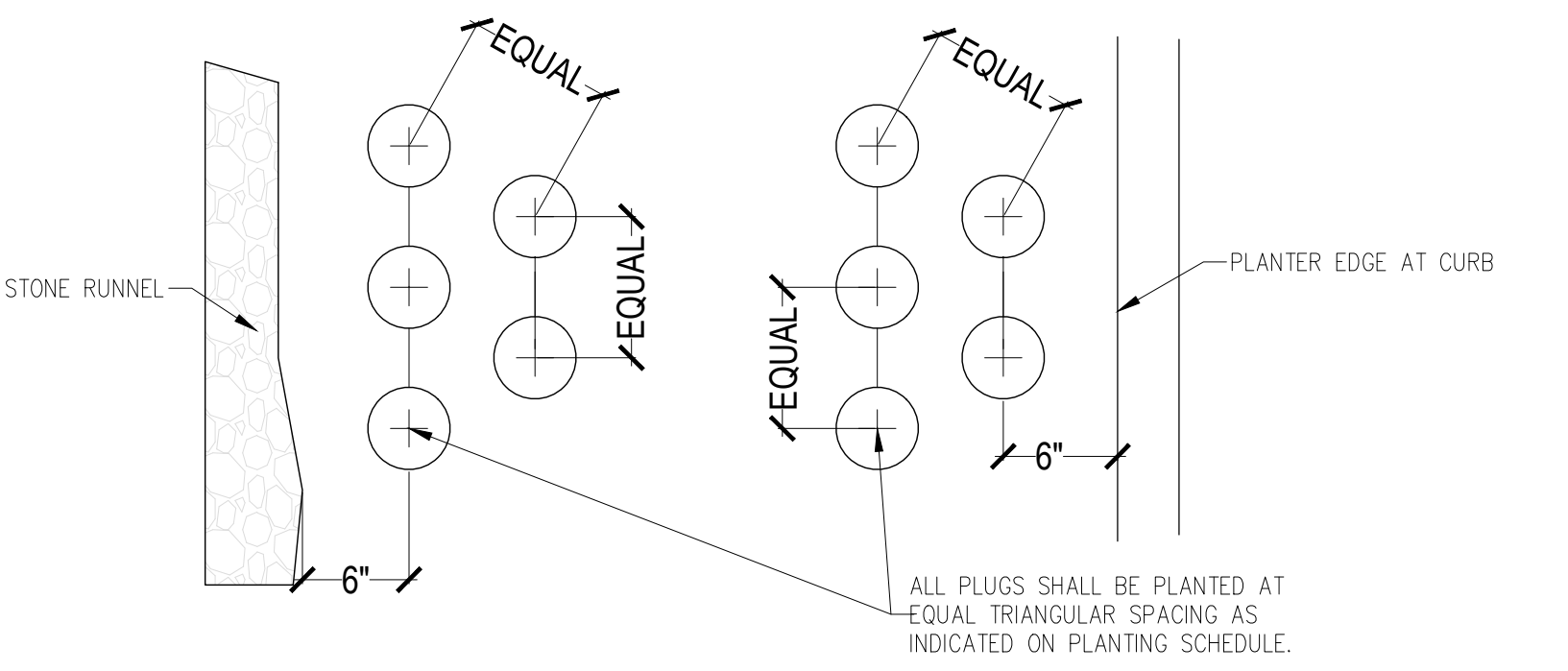
License No. 6201313414  
PEARL A. MAY  
LICENSED PROFESSIONAL ENGINEER

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**V STANDARD MDOT DRIVEWAY AND CURB DETAILS**

**W CITY OF DETROIT TYPICAL ALLEY PLAN AND SECTION**



- NOTES:
- ALL PLUGS SHALL BE PLANTED WITHIN 24 HOURS OF DELIVERY TO SITE, AND SHALL BE WATERED AFTER INSTALLATION.
  - PLUGS SHALL BE HAND-PLANTED AND MULCH SHALL BE SPREAD BY HAND. NO MACHINERY SHALL BE USED WITHIN BIORETENTION AREA TO AVOID COMPACTION OF BIORETENTION SOIL.

NOTE: THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT. THE WORK SHALL BE PERFORMED IN COMPLETE CONFORMANCE WITH THE CURRENT DWS STANDARD SPECIFICATIONS AND DETAILS.

**X BIORETENTION PLUG PLANTING**

**Grandmont Rosedale GSI Lot**  
Grandmont Rosedale Development Corporation

19526, 19534, 19540, 19550, 19560 Grand River Avenue  
Detroit, MI

PERMIT REVISIONS	DATE
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**CONSTRUCTION DETAILS**

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SHEET NUMBER  
**C5.2**