



CITY OF ANN ARBOR PROJECT MANAGEMENT

GEDDES AVENUE IMPROVEMENTS HUNTINGTON DRIVE TO HURON PARKWAY

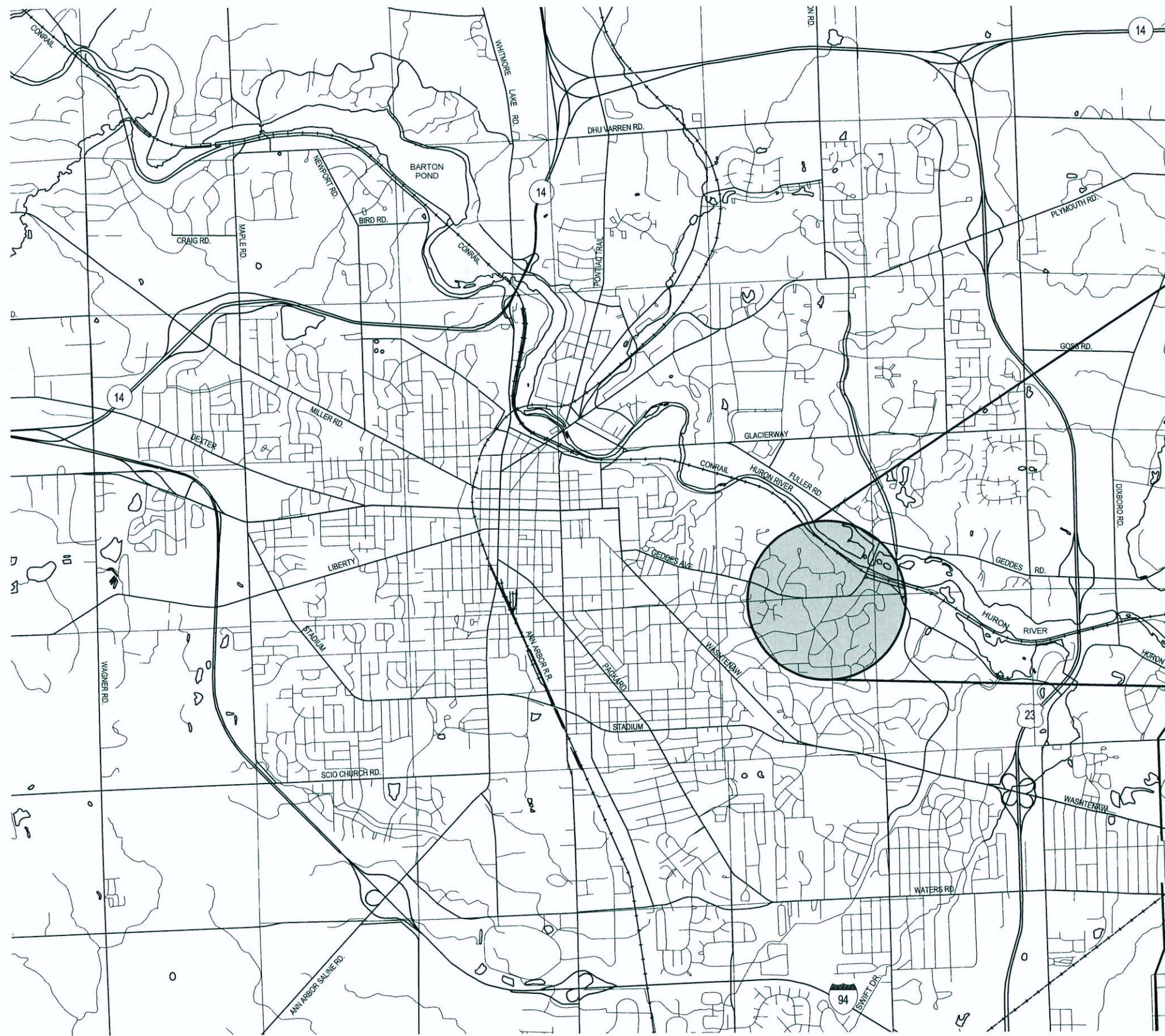
CITY OF ANN ARBOR PROJECT No. 2013-037 ITB-4366
MDEQ SRF PROJECT No. 5594-01

SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	NOTE AND LEGEND
3-9	DETAIL SHEETS
10-17	TYPICAL SECTIONS
18-22	HORIZONTAL ALIGNMENT
23-24	MAINTENANCE OF TRAFFIC PLAN
25-27	REMOVAL PLAN
28-30	SOIL EROSION & SEDIMENTATION CONTROL PLAN
31-45	ROAD PLAN & PROFILE
46-58	SANITARY PLAN & PROFILE
59-63	INFILTRATION PLAN & PROFILE
64-71	STORM SEWER PLAN & PROFILE
72-75	WATER MAIN PLAN & PROFILE
76-79	INTERSECTION & PEDESTRIAN CROSSING GRADES
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158-186	RETAINING WALL PLAN, CROSS SECTIONS, ELEVATIONS, TYPICALS
187	QUANTITIES

TRAFFIC DATA	
2014 ANNUAL DAILY TRAFFIC (ADT)	11,500
2034 ADT	12,700
2014 COMMERCIAL	2%
2034 COMMERCIAL	2%
POSTED SPEED	25 MPH
DESIGN SPEED	30 MPH

STANDARD PLANS		
CONSTRUCTION OF THE FOLLOWING ITEMS, WHERE CALLED FOR ON THE PLANS WILL BE CONSTRUCTED ACCORDING TO MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD PLANS AS INDICATED.		
REQUIRED ON THIS PROJECT	ITEM OF WORK	STANDARD PLAN NUMBERS
X	SIDEWALK RAMP AND DETECTABLE WARNING DETAILS	R-28-I
X	GUARDRAIL TYPES A, B, BD, T, AND TD	R-60-I
X	GUARDRAIL APPROACH TERMINAL TYPES 2B & ST	R-62-H
X	GUARDRAIL DEPARTING TERMINAL TYPES B & T	R-66-D
X	SOIL EROSION & SEDIMENTATION CONTROL MEASURES	R-96-E
X	SEEDING AND TREE PLANTING	R-100-H
TRAFFIC AND SAFETY STANDARD PLANS		
X	GROUND DRIVEN SIGN SUPPORTS FOR TEMP SIGNS	WZD-100-A*
X	TEMPORARY TRAFFIC CONTROL DEVICES	WZD-125-E*

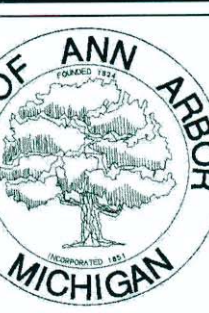
* SPECIAL DETAIL LOCATED IN THE PROPOSAL



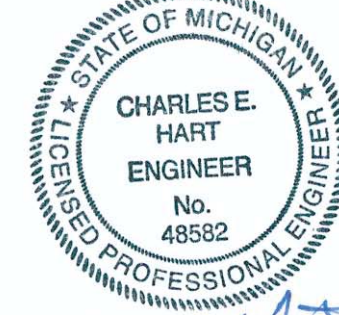
VICINITY MAP



LOCATION MAP



PROJECT MANAGEMENT SERVICE UNIT
CITY OF ANN ARBOR PUBLIC SERVICE
301 EAST HURON STREET, P.O. BOX 8647
ANN ARBOR, MICHIGAN 48107-8647
734-794-6410 www.a2gov.org



CHARLES E. HART

PLANS PREPARED BY:

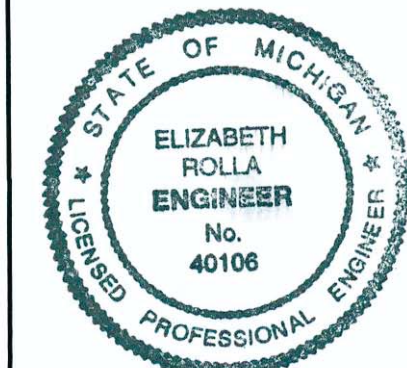


555 HULET DRIVE
BLOOMFIELD HILLS, MICH.
48302-0360

PREPARED UNDER THE SUPERVISION OF

Elizabeth Rolla
ELIZABETH ROLLA, P.E. MI LICENSE No. 40106
PROJECT MANAGER

4/15/15
DATE



ENGINEER'S SEAL

NOTES:

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 53, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL HTUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

THE UNDERGROUND LOCATIONS SHOWN FOR NATURAL GAS, TELEPHONE, ELECTRICAL POWER, CABLE TV AND FIBER OPTIC LINES ARE APPROXIMATE. THE CITY OF ANN ARBOR ASSUMES NO RESPONSIBILITY FOR THEIR ACCURATE REPRESENTATION IN THIS DRAWING. MISS DIG MUST BE CONTACTED PRIOR TO CONSTRUCTION TO LOCATE THESE UTILITIES.

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION (INCLUDING REFERENCED M.D.O.T. PUBLICATIONS) AND THIS PROJECT'S CONTRACT DOCUMENTS, INCLUDING THE CITY OF ANN ARBOR'S STANDARD SPECIFICATIONS FOR CONSTRUCTION.

THE PROPOSED IMPROVEMENTS COVERED BY THESE PLANS ARE DESIGNED IN ACCORDANCE WITH THE 2011 A.A.S.H.T.O. "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS" AND THE TRAFFIC CONTROL IN ACCORDANCE WITH THE 2012 "MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."



Know what's below.
Call before you dig.

ISSUED FOR BIDS	ALP/ANN	ALP/ANN	ALP/ANN	ALP/ANN	ALP/ANN	DATE	REV.	DESCRIPTION
FINAL PLAN SUBMITTAL	APR. 22, 2015	CEH						
FINAL REVIEW SUBMITTAL	MAR. 26, 2015	CEH						
PRELIMINARY PLAN SUBMITTAL	MAR. 13, 2015	CEH						
	JAN. 29, 2015	CEH						

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

GEDDES AVENUE IMPROVEMENTS
Reconstruction of Geddes Avenue with enclosed storm water quality improvements, including infiltration beds, construction of intermittent concrete curb and gutter, concrete sidewalk, construction of approximately 3000 ft of 8" sanitary sewer, 200 ft retaining wall along section of roadway parallel to the railroad and restoration of disturbed areas.

ENGINEER'S SEAL

PROJECT MANAGEMENT SERVICE UNIT

SCALE

DRAWING No.

SHEET No.

CONSTRUCTION NOTES

- 1. DRIVEWAYS AND ENTRANCES TO BUILDINGS, REAL PROPERTY AND THE LIKE SHALL NOT BE BLOCKED EXCEPT FOR SHORT DURATIONS AND ONLY WHEN APPROVED BY THE ENGINEER...

EXISTING WATER STRUCTURE TABLE with columns: STRUCTURE, STATION, RIM, DEPTH, DIA., TYPE. Includes entries for stations like STA. 10+21, 13' LT.

EXISTING SANITARY SEWER STRUCTURE TABLE with columns: STRUCTURE, STATION, RIM, DEPTH, DIA., TYPE, INVERTS. Includes entries for stations like STA. 5+41, 0' LT.

BENCHMARK DATA table with columns: BM #, ELEVATION, DESCRIPTION. Lists various landmarks like STEAMER VALVE ON HYDRANT ON THE S. SIDE OF GEDDES AVE.

EXISTING STORM SEWER STRUCTURE TABLE with columns: STRUCTURE, STATION, RIM, DEPTH, DIA., TYPE, INVERTS. Includes entries for stations like STA. 9+36, 14' LT.

PERMITS TO BE OBTAINED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION. Table with columns: PERMIT, ISSUING AUTHORITY. Includes GRADING/SOIL EROSION & SEDIMENTATION CONTROL PERMIT.

PERMITS TO BE OBTAINED BY THE CITY OF ANN ARBOR PRIOR TO THE BEGINNING OF CONSTRUCTION. Table with columns: PERMIT, ISSUING AUTHORITY. Includes M.D.E.Q. WATER MAIN CONSTRUCTION PERMIT.

EXISTING LEGEND

Legend symbols for existing utilities: FIRE HYDRANT, GATE VALVE IN BOX, STOP BOX, WELL, CATCH BASIN (SQ), CATCH BASIN (RD), STORM MANHOLE, SANITARY MANHOLE, PEDESTRIAN CROSSING OVERHEAD SIGN, SIGN, ORNAMENTAL LIGHT, TELEPHONE MANHOLE, TELEPHONE RISER, GAS VALVE, GAS VENT, UTILITY POLE, LAMP POLE, GUY POLE, GUY ANCHOR, MAILBOX, NEWSPAPER BOX, SOIL BORING, TRAVERSE POINT, BENCH MARK, IRON PIPE, SECTION CORNER. Also includes symbols for WATER MAIN, STORM SEWER, SANITARY SEWER, GAS MAIN, ELECTRICAL OVERHEAD, ELECTRICAL UNDERGROUND, TELEPHONE OVERHEAD, TELEPHONE UNDERGROUND, CABLE TV UNDERGROUND, PARCEL BOUNDARY, RIGHT OF WAY (ROW), BUILDING, CENTERLINE OF DITCH, SECTION LINE, FENCE, GRAVEL, GUARDRAIL, STONE WALL, BRUSH LINE, MAJOR CONTOUR, MINOR CONTOUR, TREE (DECIDUOUS), TREE (CONIFEROUS).

PROPOSED LEGEND

Legend symbols for proposed utilities: FIRE HYDRANT, GATE VALVE IN BOX, GATE VALVE IN WELL, STOP BOX, CATCH BASIN, DOUBLE INLET, STORM MANHOLE, STORM MAINTENANCE BASIN, DRAINAGE ARROW, END SECTION, SANITARY MANHOLE, SIGN, BARREL, HANDHOLE, TREE (DECIDUOUS), TREE (CONIFEROUS), VINE. Also includes symbols for WATER MAIN, STORM SEWER, SANITARY SEWER, DITCH CENTERLINE, FENCE, SILT FENCE, COMMUNICATION CONDUIT, CURB, LIMITS OF CONSTRUCTION, DETECTABLE WARNING, ASPHALT PAVEMENT, CONCRETE PAVEMENT, CONCRETE SIDEWALK.

UTILITY CONTACT INFORMATION table with columns: PUBLIC UTILITIES, OWNER, CONTACT. Lists contact info for Forestry, Sanitary Sewer, Storm Sewer, Traffic Signs & Signals, Water System, Private Utilities (Gas, Electric, Phone, Cable).

Vertical sidebar containing project information: PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR, GEDDES AVENUE IMPROVEMENTS, PROJECT NOTES AND LEGEND, SCALE, SHEET NO., DRAWING NO., NOTE - 01, SHEET NO., 2 OF 187.



CEH
CEH
CEH
CEH
CEH
CHECKED

APR. 22, 2015
MAR. 26, 2015
MAR. 13, 2015
JAN. 29, 2015
DATE

ISSUED FOR BIDS
FINAL PLAN SUBMITTAL
FINAL REVIEW SUBMITTAL
PRELIMINARY PLAN SUBMITTAL
DESCRIPTION

REV. DATE

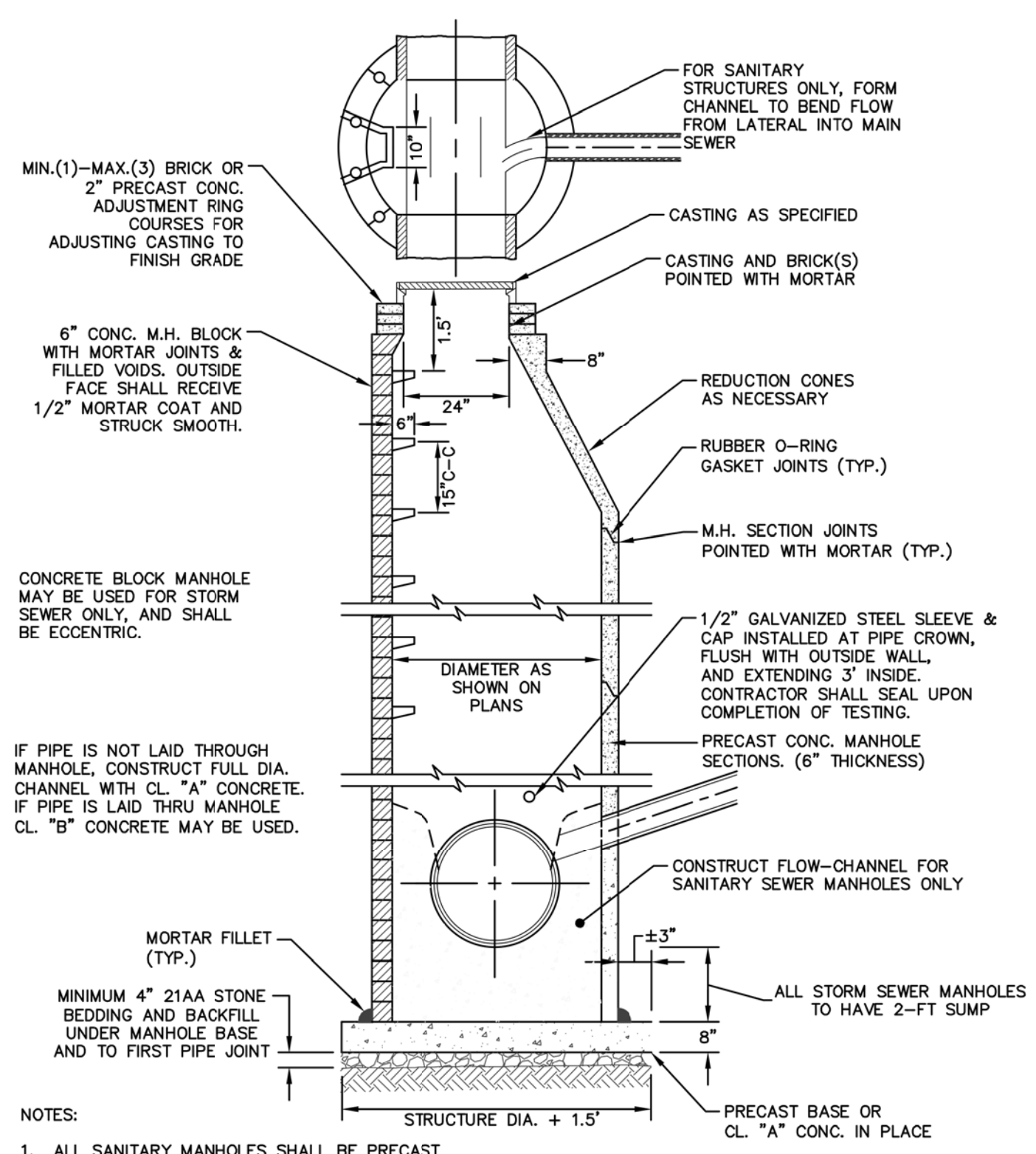
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CITY OF ANN ARBOR
MICHIGAN

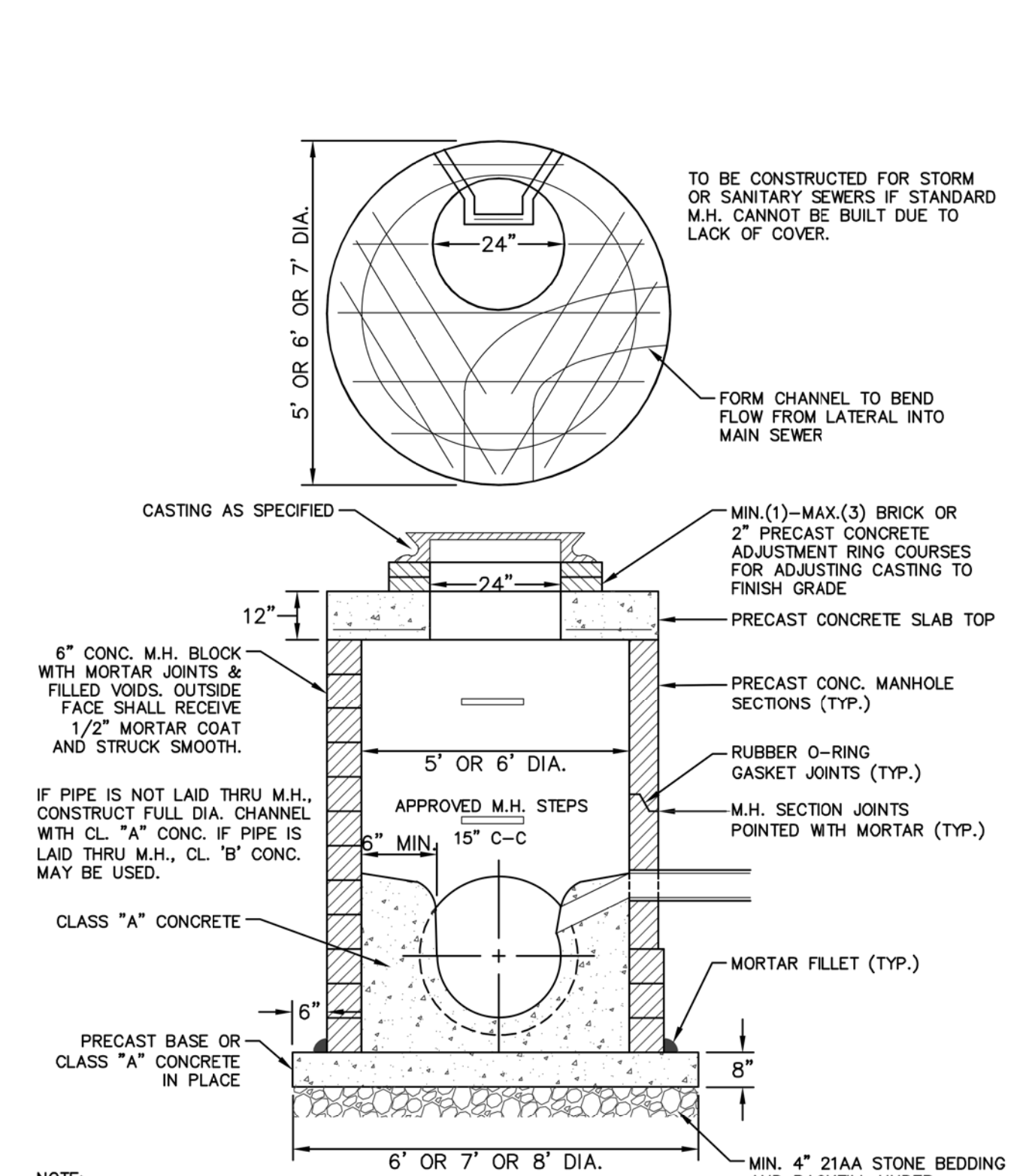
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDES AVENUE IMPROVEMENTS
CITY OF ANN ARBOR
MANHOLE STRUCTURES, STRUCTURE COVER ADJUSTS AND TRENCH DETAILS
DRAWING No. DET-01

SCALE NOT TO SCALE
SHEET No.

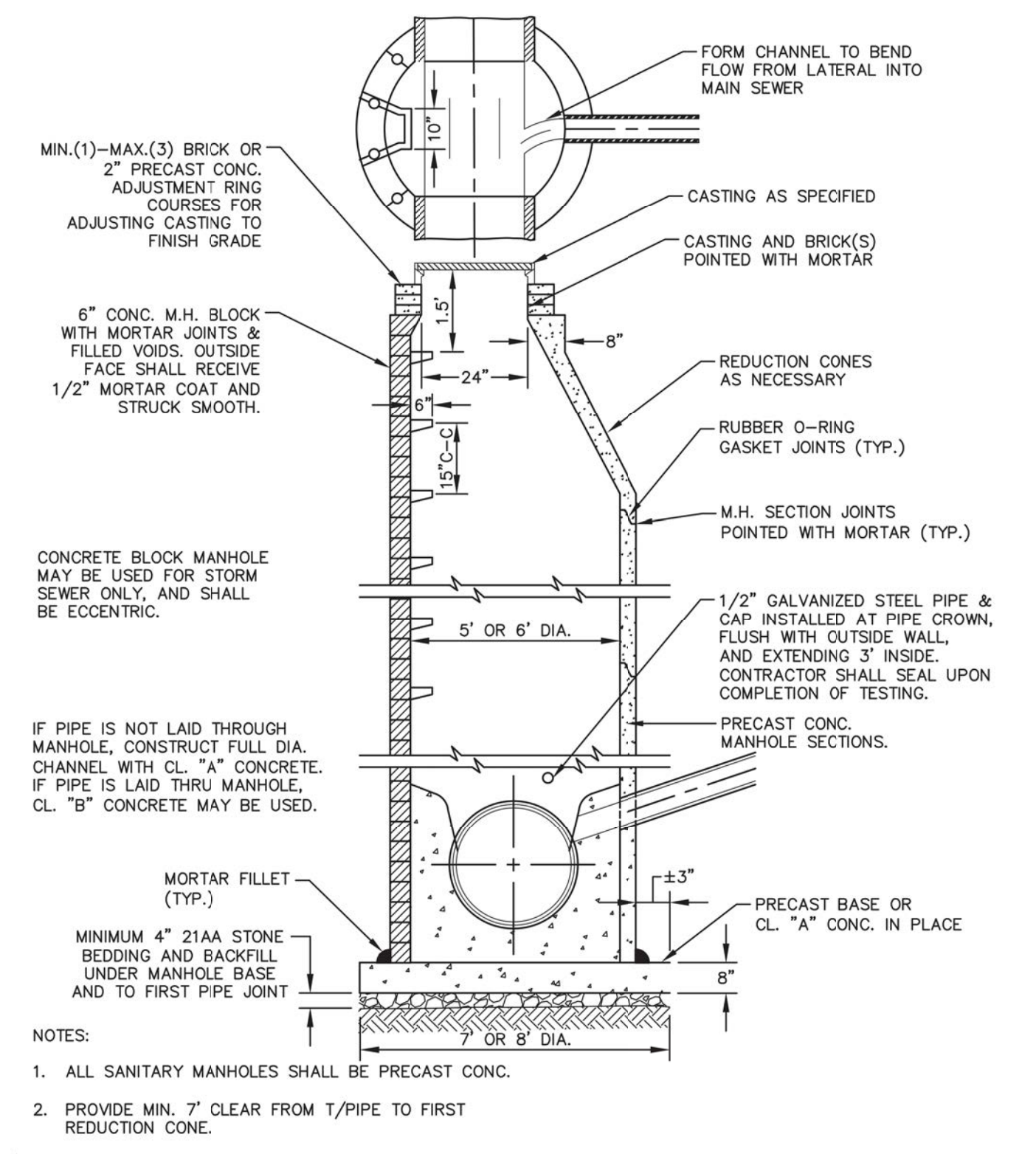
3 OF 187



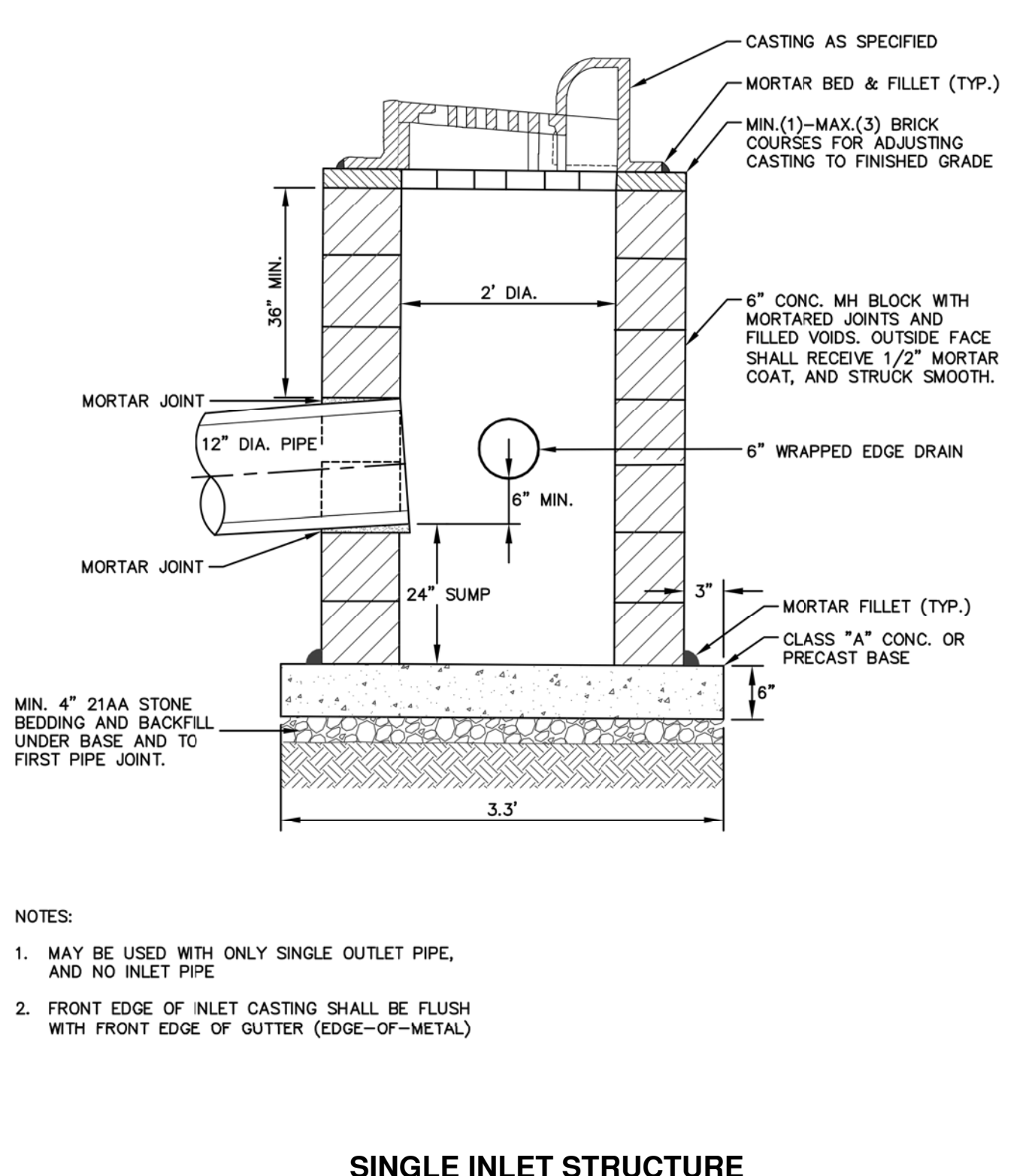
STANDARD MANHOLE (TYPE I)
SD-S-1



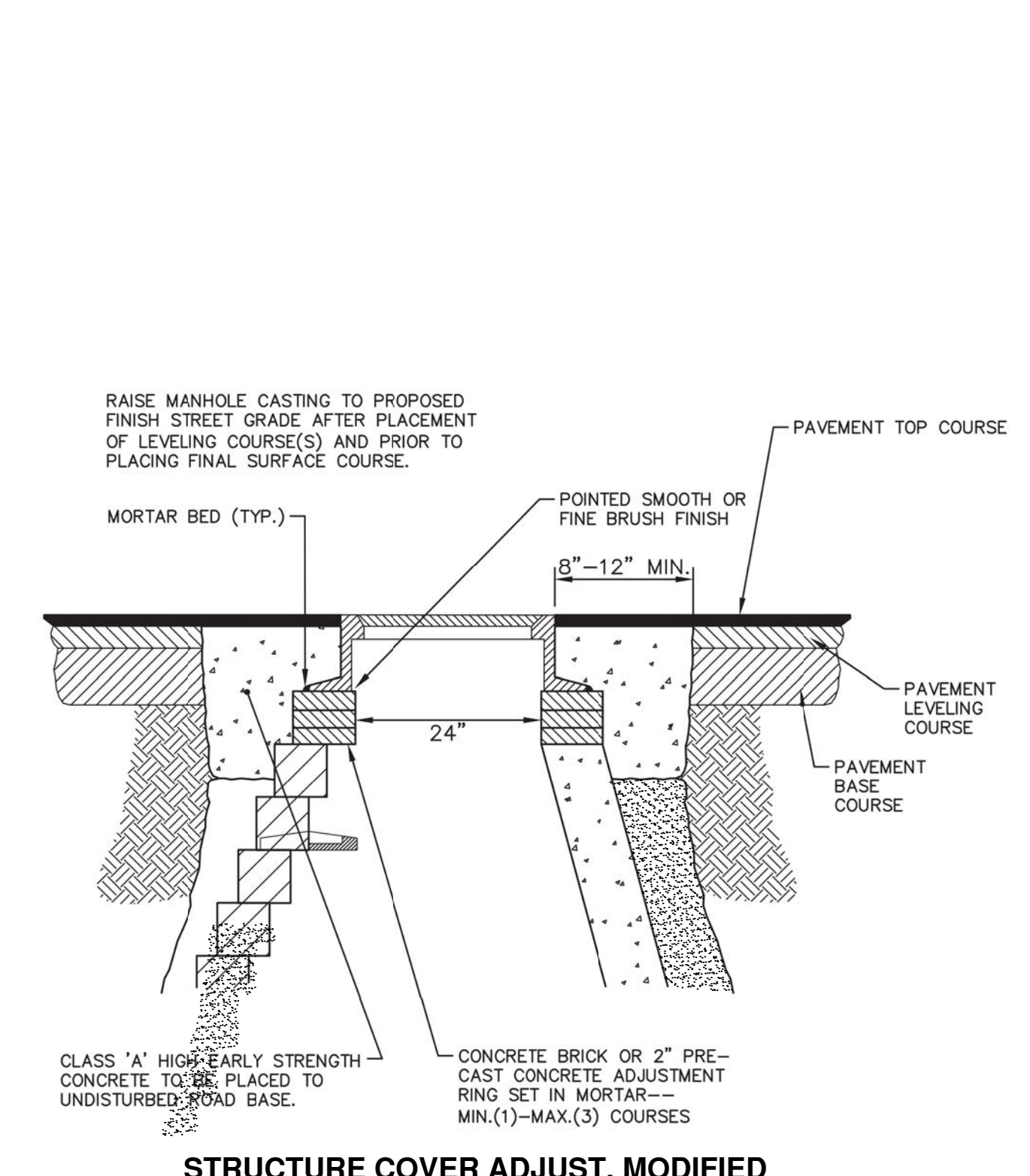
STANDARD MANHOLE (TYPE III)
SD-S-3



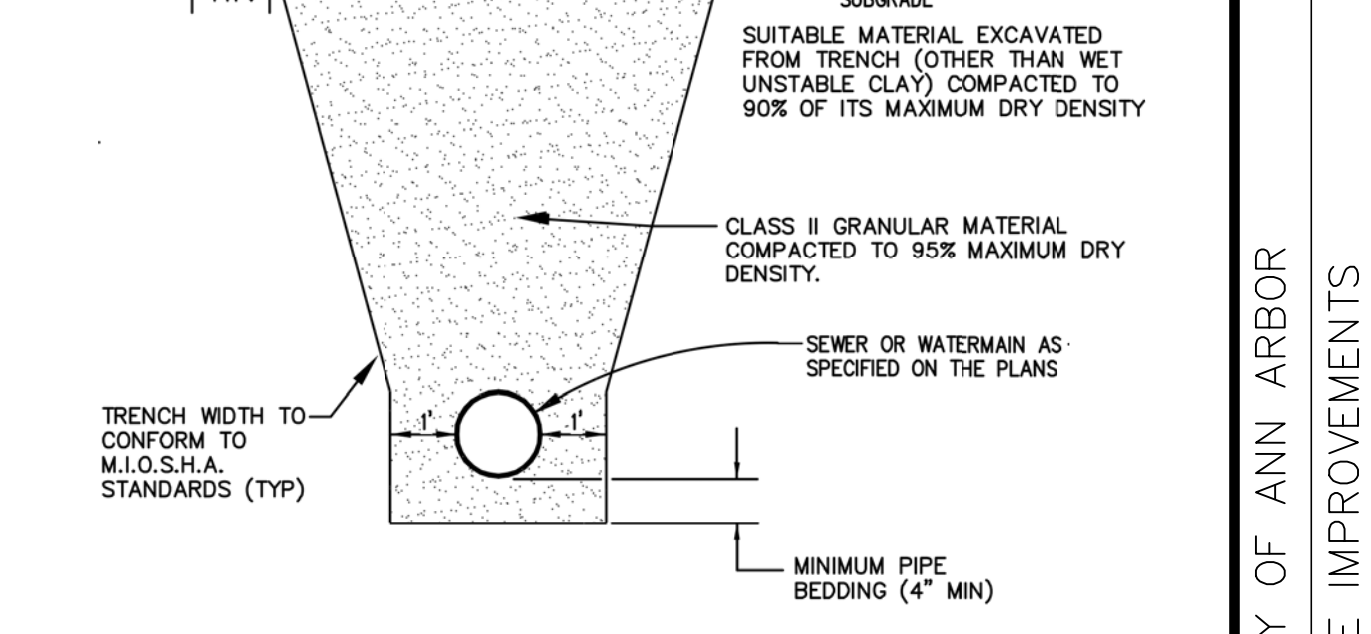
STANDARD MANHOLE (TYPE II)
SD-S-2



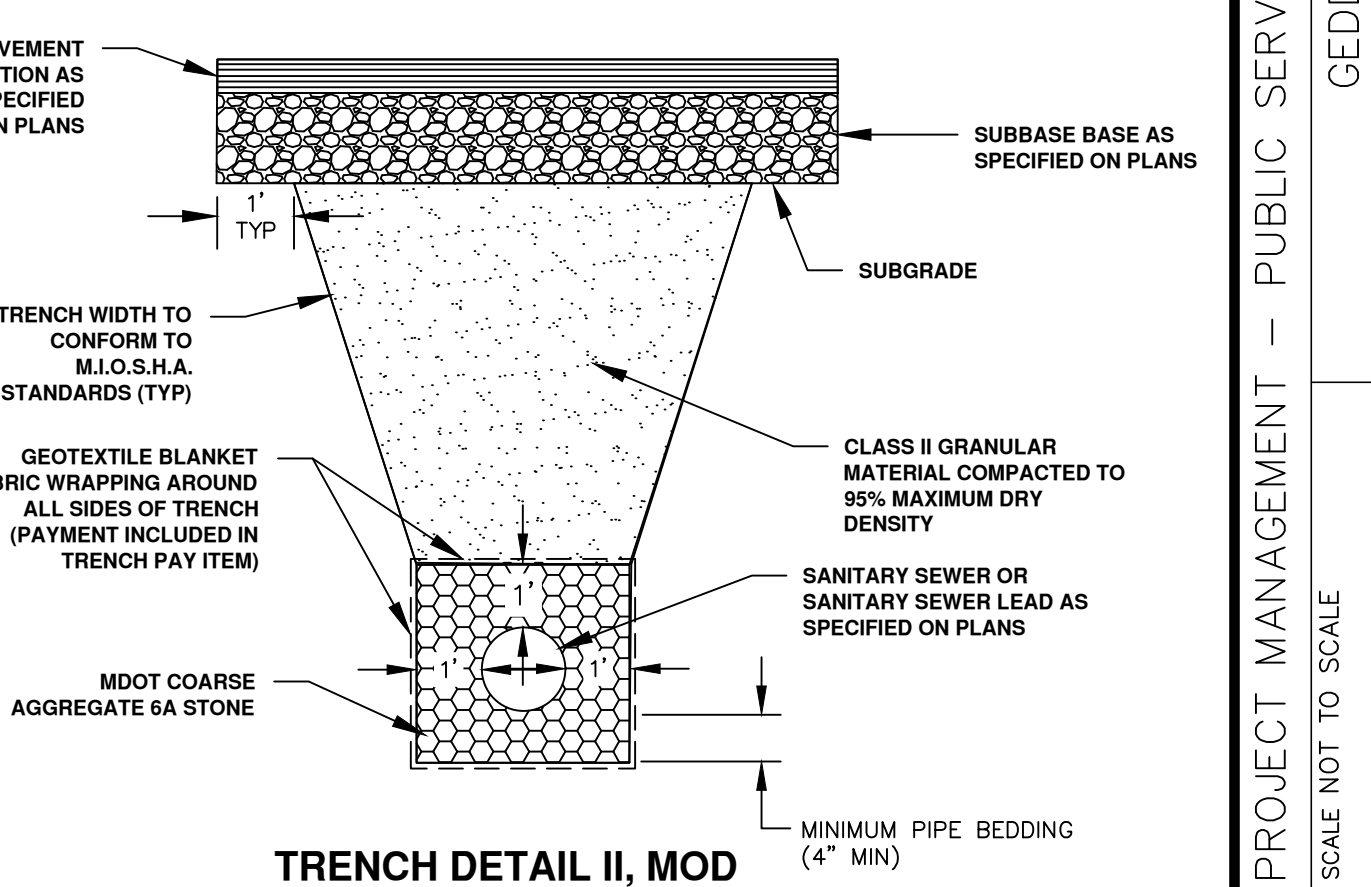
SINGLE INLET STRUCTURE
SD-S-10



STRUCTURE COVER ADJUST, MODIFIED



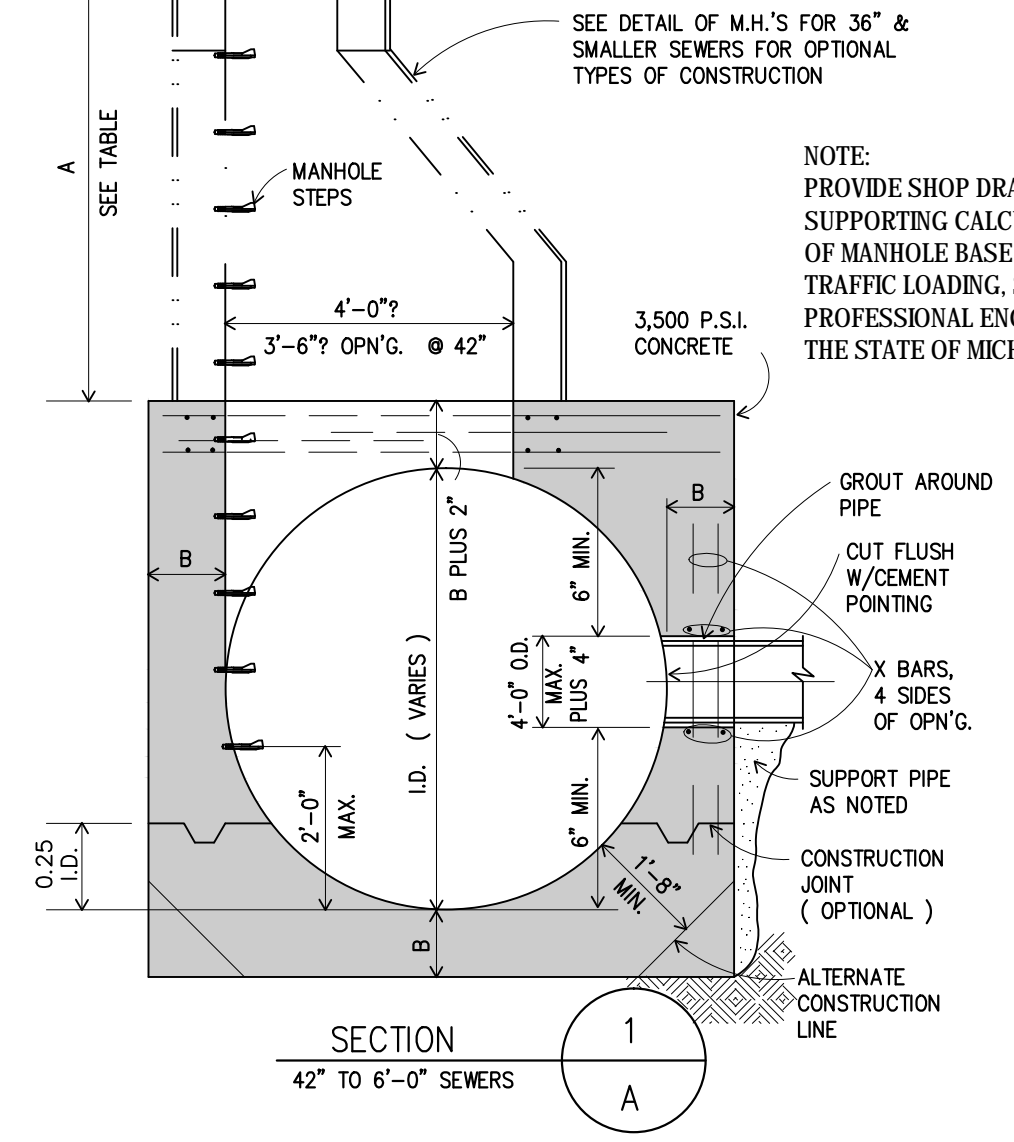
TRENCH DETAIL I



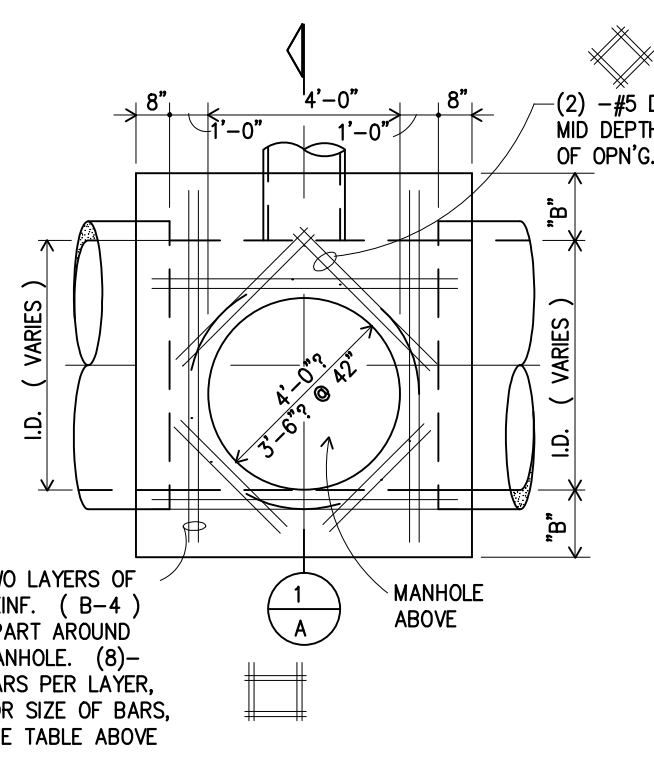
TRENCH DETAIL II, MOD

A	B	REINF.
0 - 11'	12"	#5
11' - 16'	14"	#6
16' - 25'	18"	#7

OP'G. SIZE	REINF.	
	No.	LENGTH
2'-0" & SMALLER	2	4'-0"
2'-1" THRU 4'-0"	3	6'-0"



MANHOLE BASE, C.I.P.





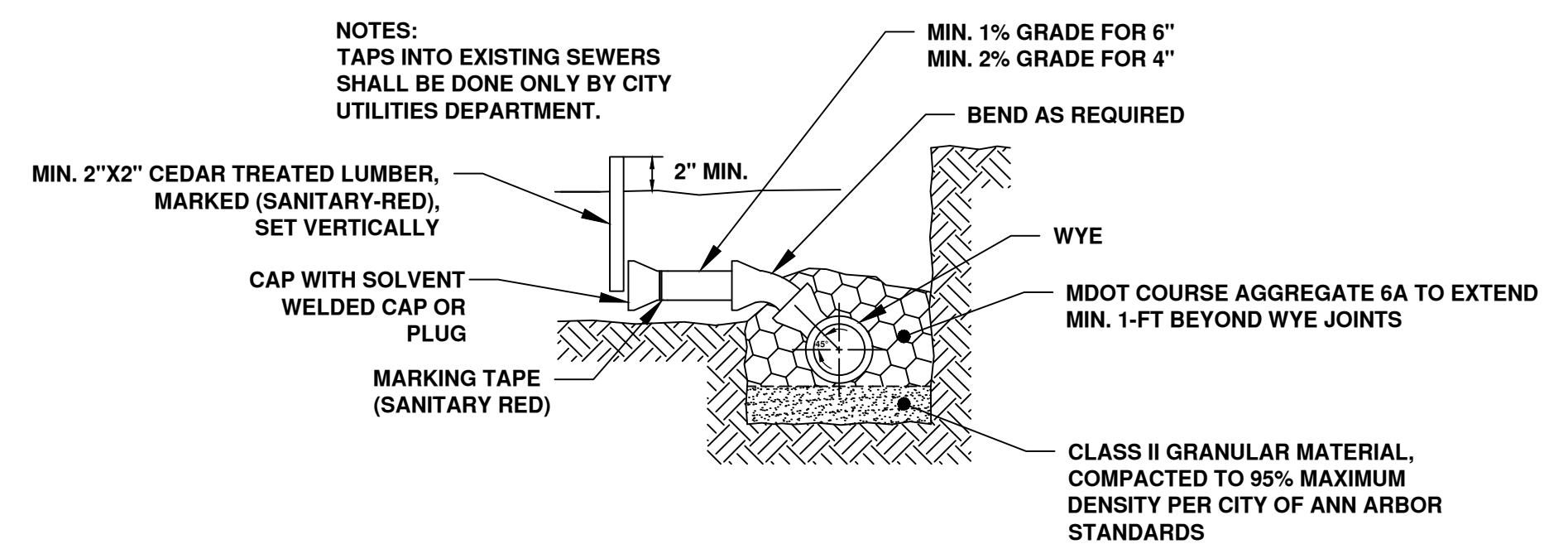
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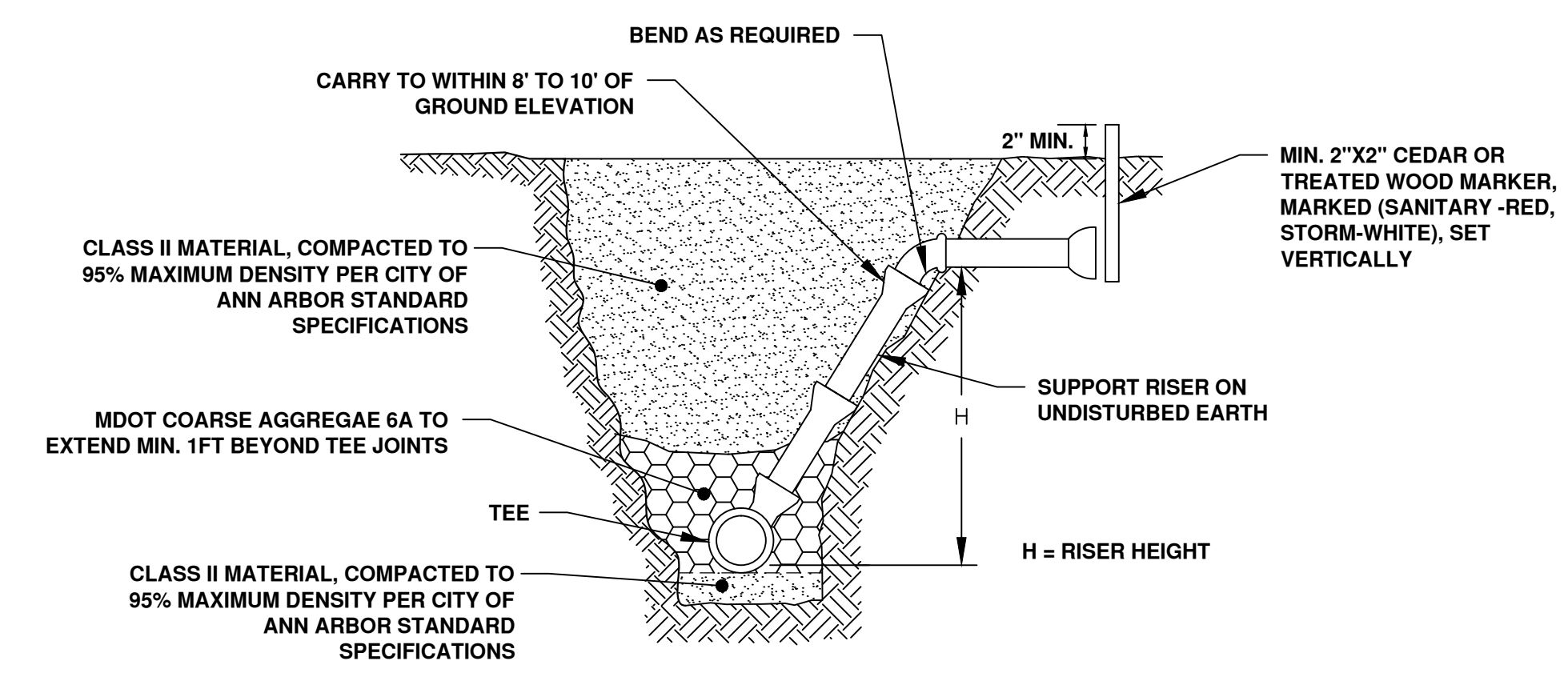


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
CITY OF ANN ARBOR
SANITARY SEWER DETAILS

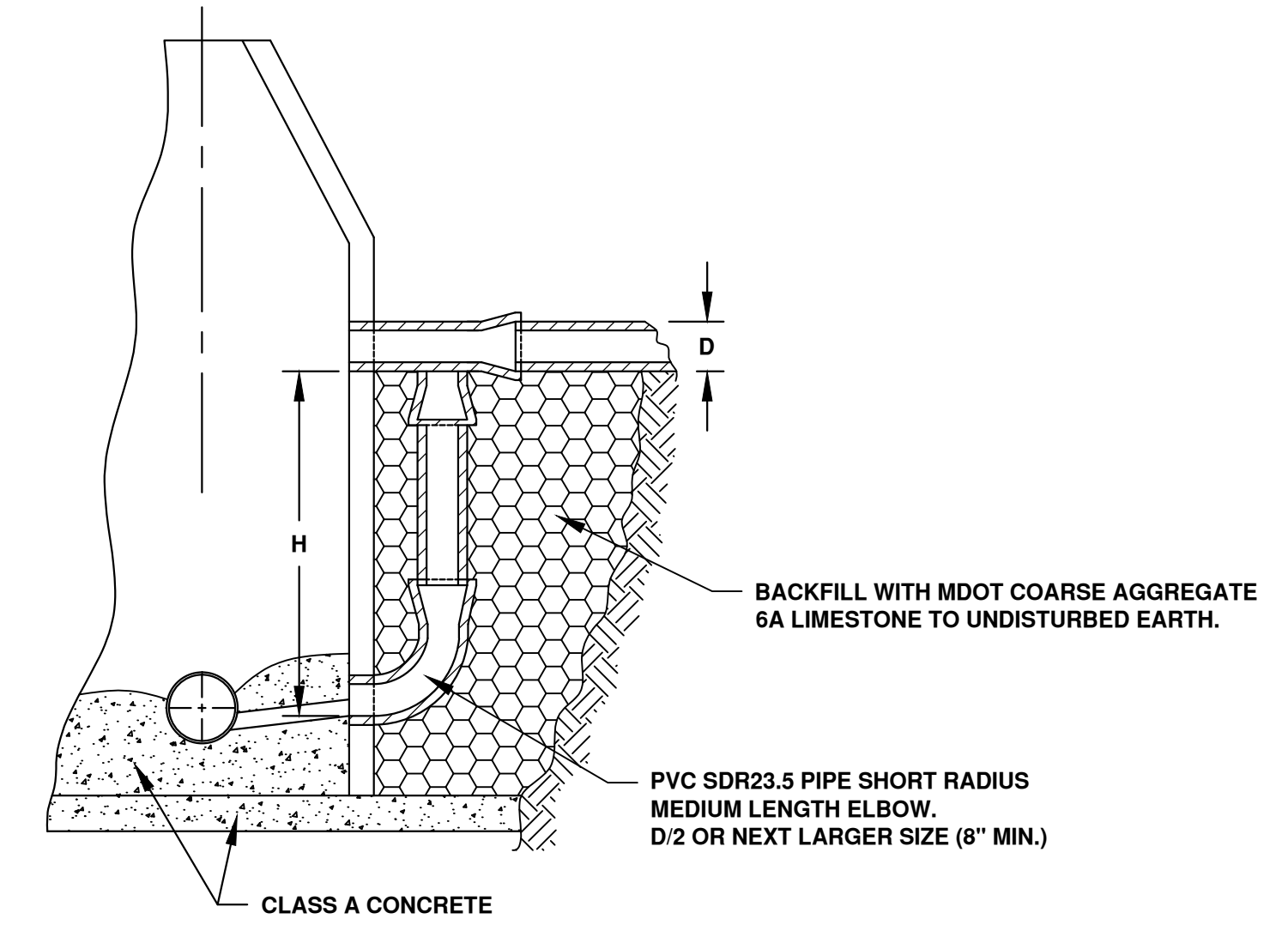
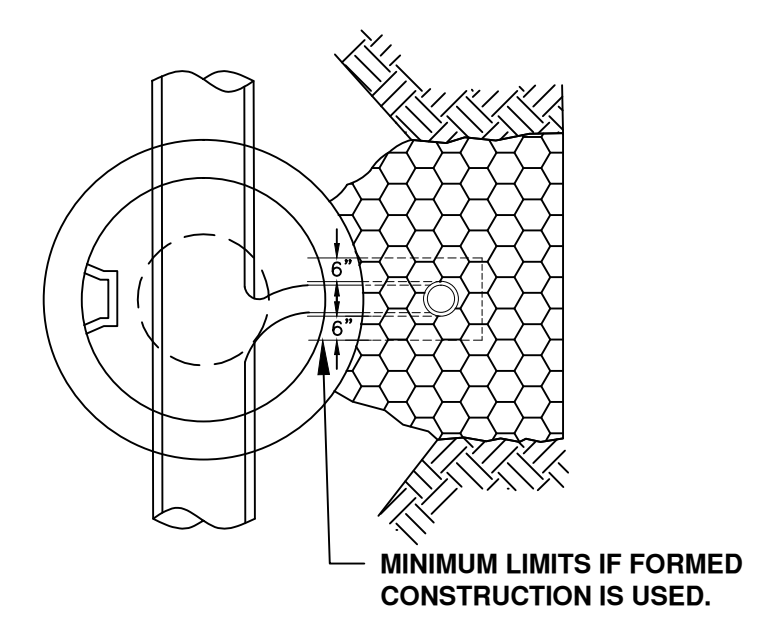
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DRAWING No. DET-02
SHEET No.



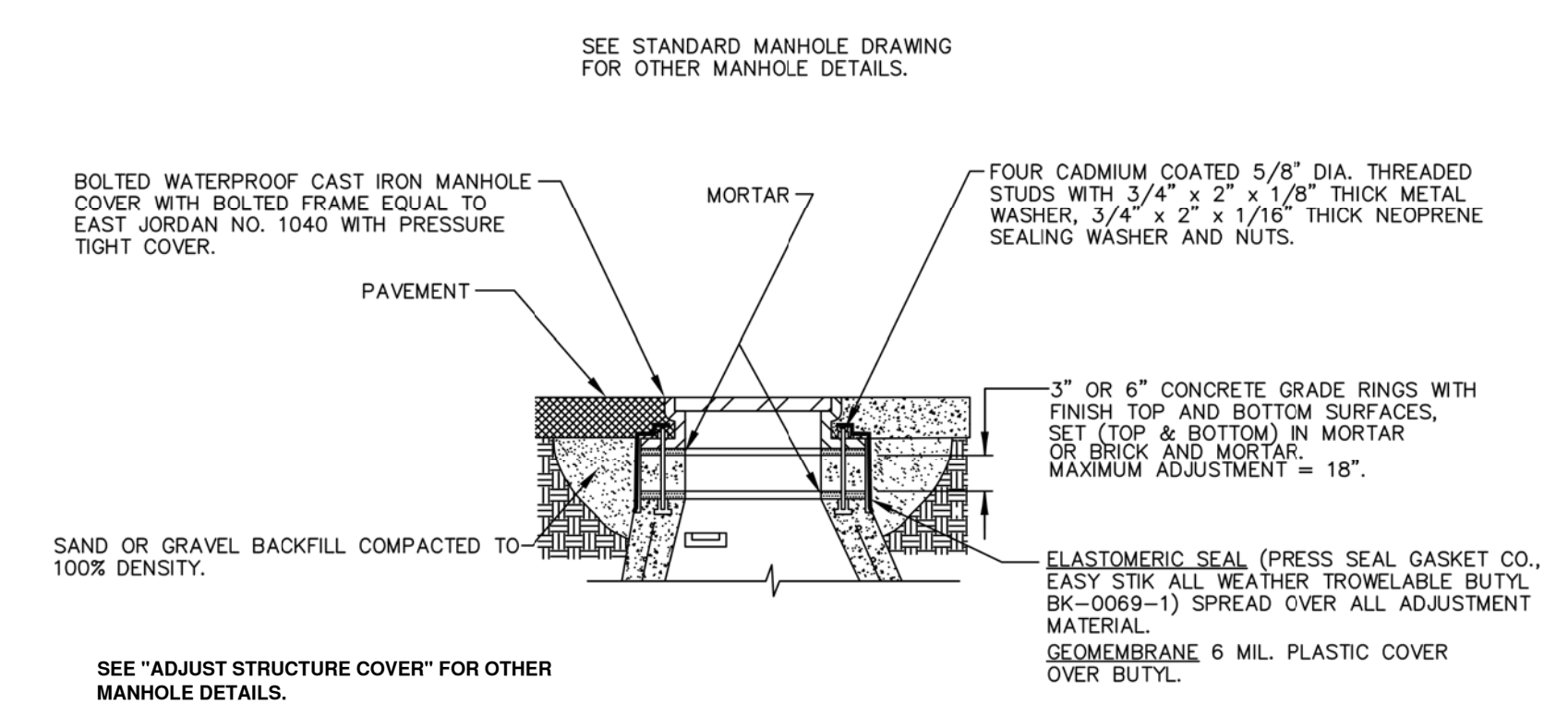
SANITARY SEWER CONNECTION WITHOUT RISER



SANITARY SEWER CONNECTION WITH RISER



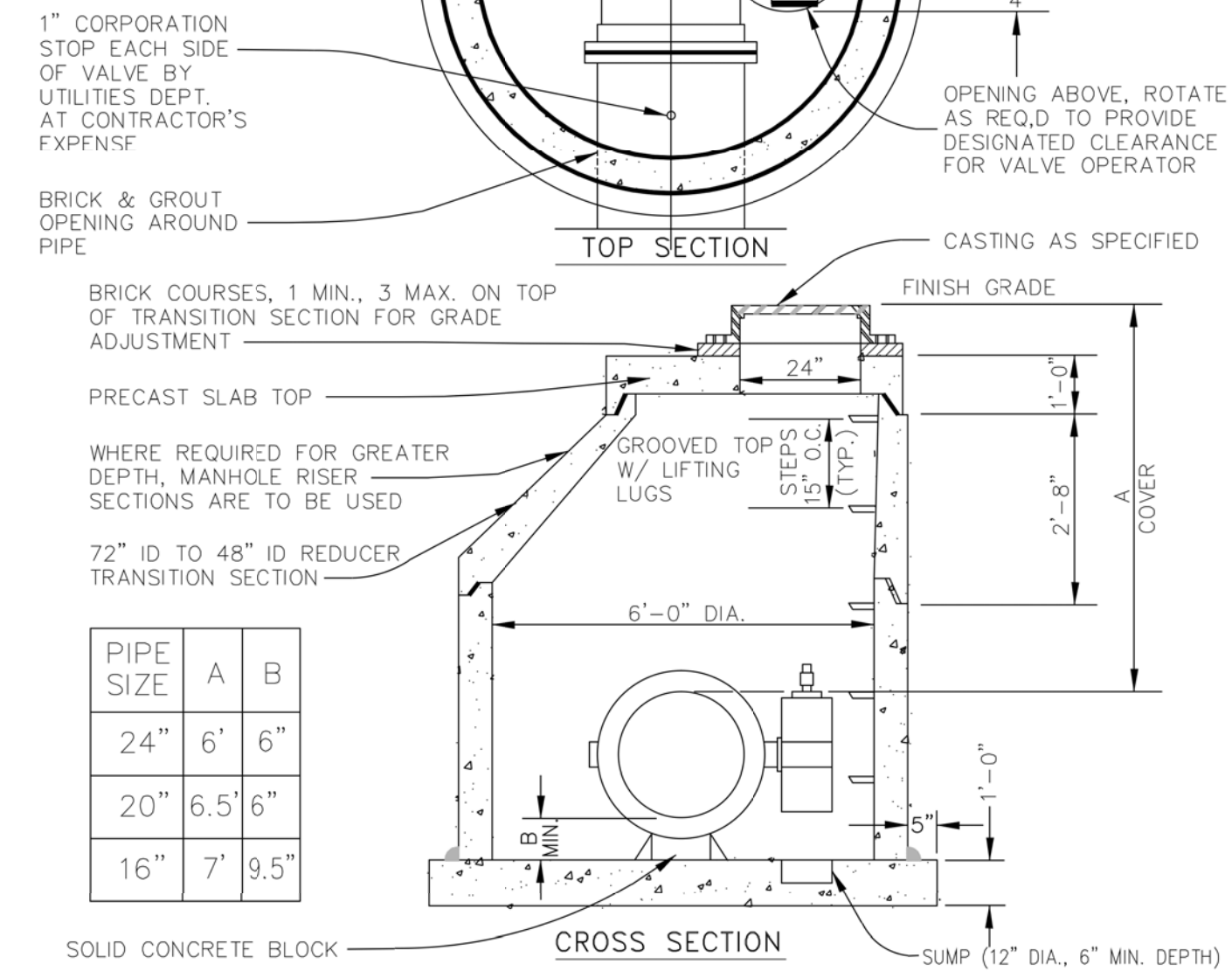
DROP MANHOLE CONNECTION



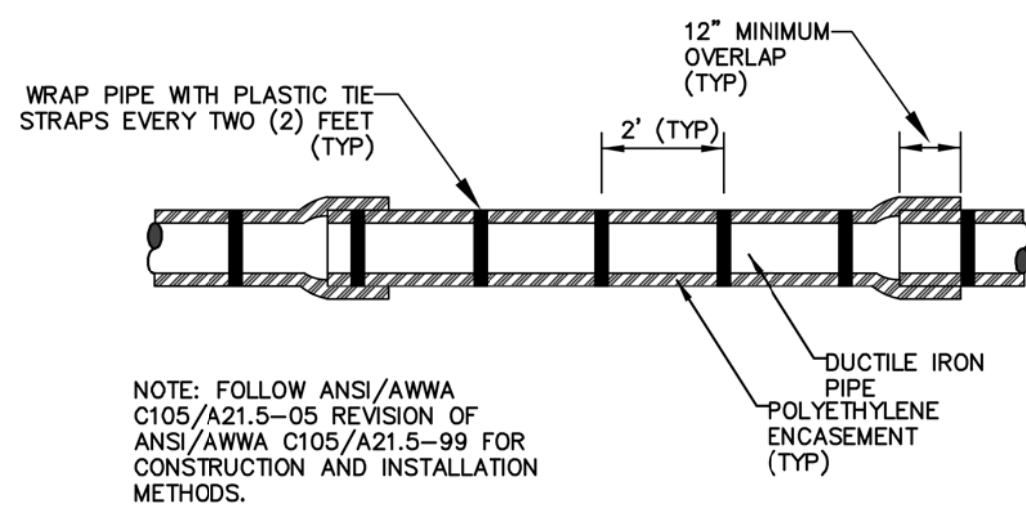
SANITARY MANHOLE ADJUSTMENT

PRE-CAST CONCRETE MANHOLE

1. MANHOLE SECTIONS SHALL MEET ASTM C-478
2. ALL JOINTS MADE WATER TIGHT WITH RUBBER GASKET JOINTS
3. CONE TO BE ECCENTRIC TYPE

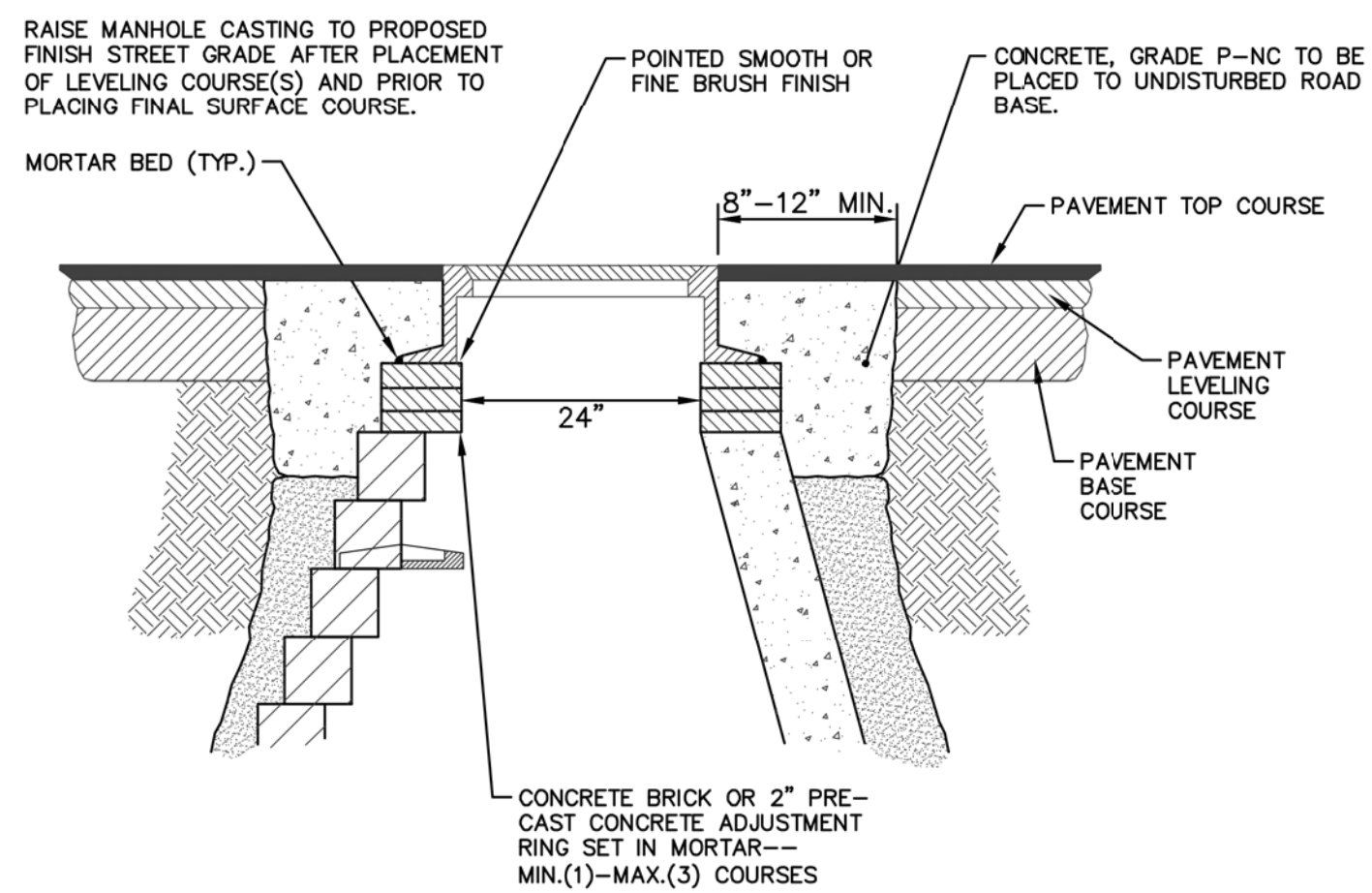


**GATE WELL FOR BUTTERFLY VALVES
16" AND LARGER (SD-W-4)**



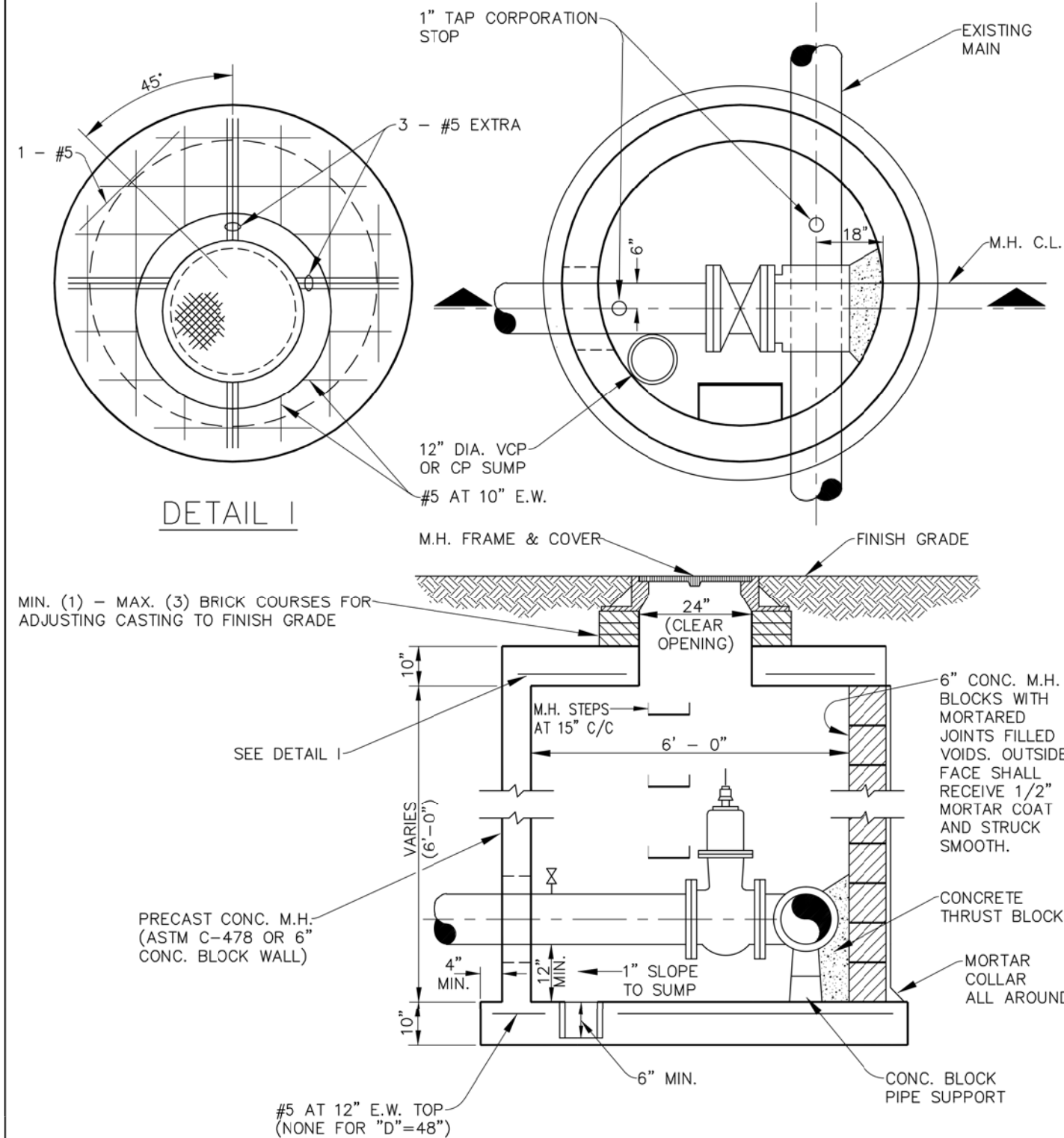
APPLIES TO: POLYETHYLENE WRAPPED D.I. WATERMAIN
SEE PLANS FOR LOCATIONS

POLYETHYLENE ENCASEMENT

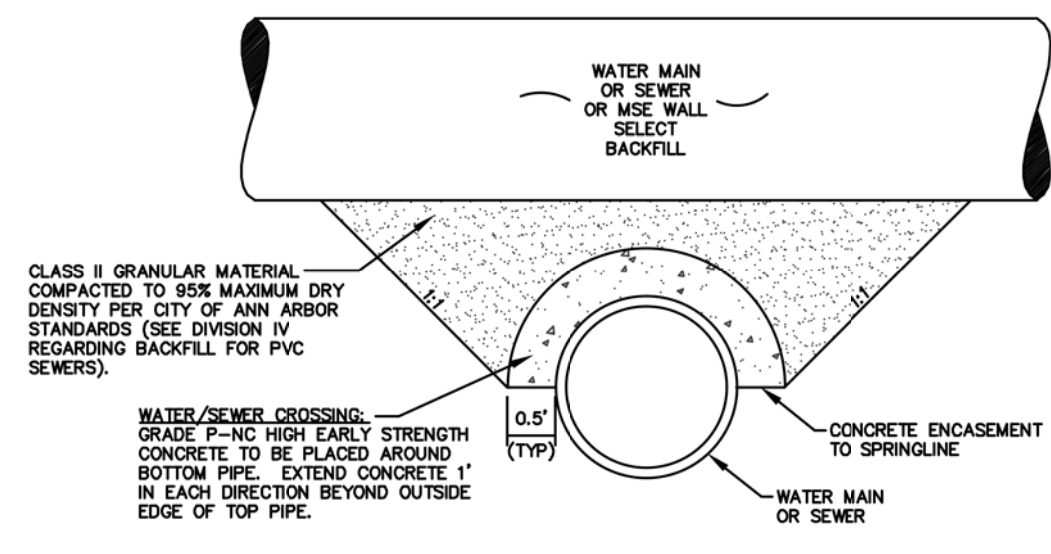


NOTE:
IF MANHOLE WILL BE PLACED IN GRAVEL ROAD, CASTING TO BE SET 6" TO 8" BELOW ROADWAY GRADE. ALL CONSTRUCTION METHODS SHALL REMAIN AS SHOWN ABOVE.

MANHOLE CASTING ADJUSTMENT SD-GU-6



TAPPING SLEEVE AND VALVE IN WELL (SD-W-5)

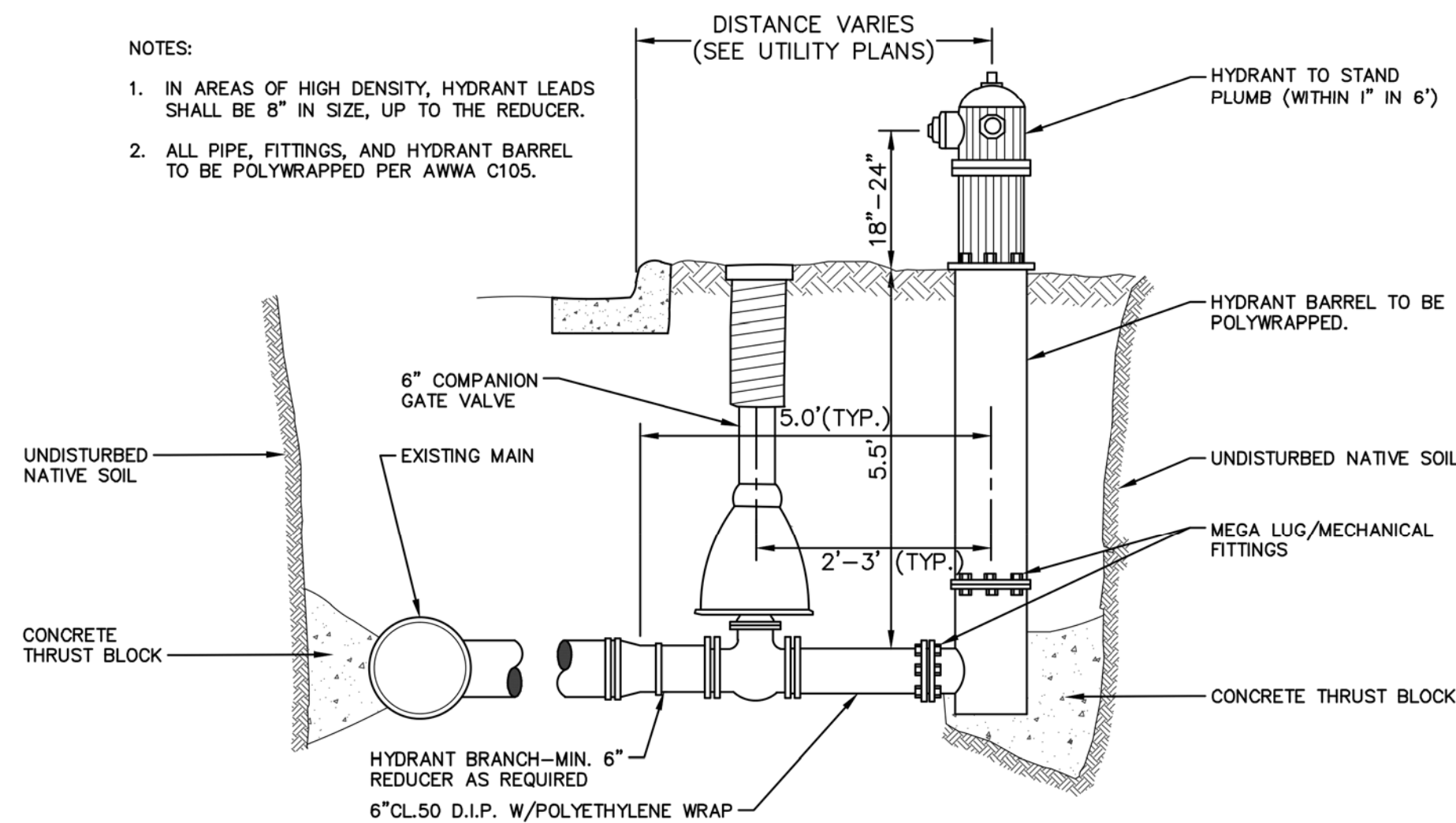


APPLIES TO WATER AND/OR SEWER CROSSINGS WITH LESS THAN 1.5' OF VERTICAL CLEARANCE - SEE PLANS FOR LOCATIONS

CONCRETE UTILITY SADDLE

NOTES:

1. IN AREAS OF HIGH DENSITY, HYDRANT LEADS SHALL BE 8" IN SIZE, UP TO THE REDUCER.
2. ALL PIPE, FITTINGS, AND HYDRANT BARREL TO BE POLYWRAPPED PER AWWA C105.



FIRE HYDRANT ASSEMBLY SD-W-1

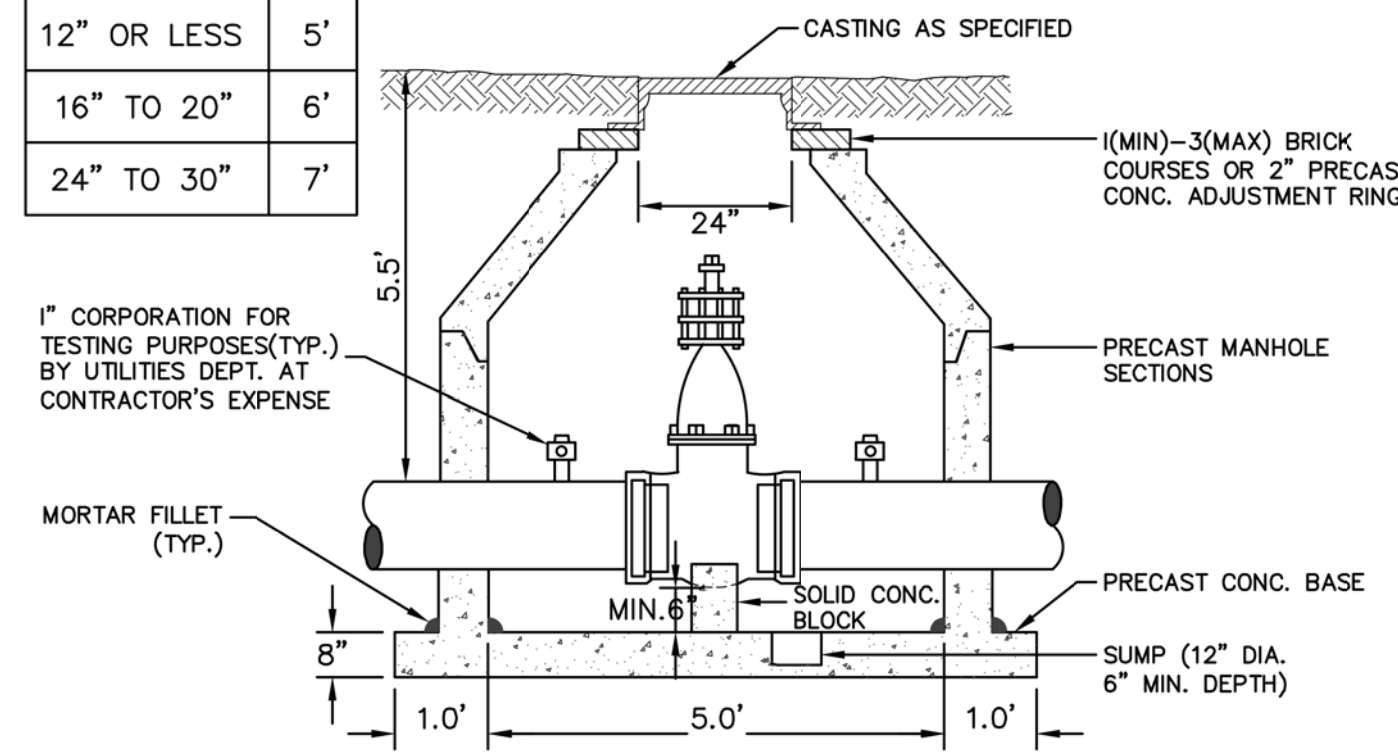
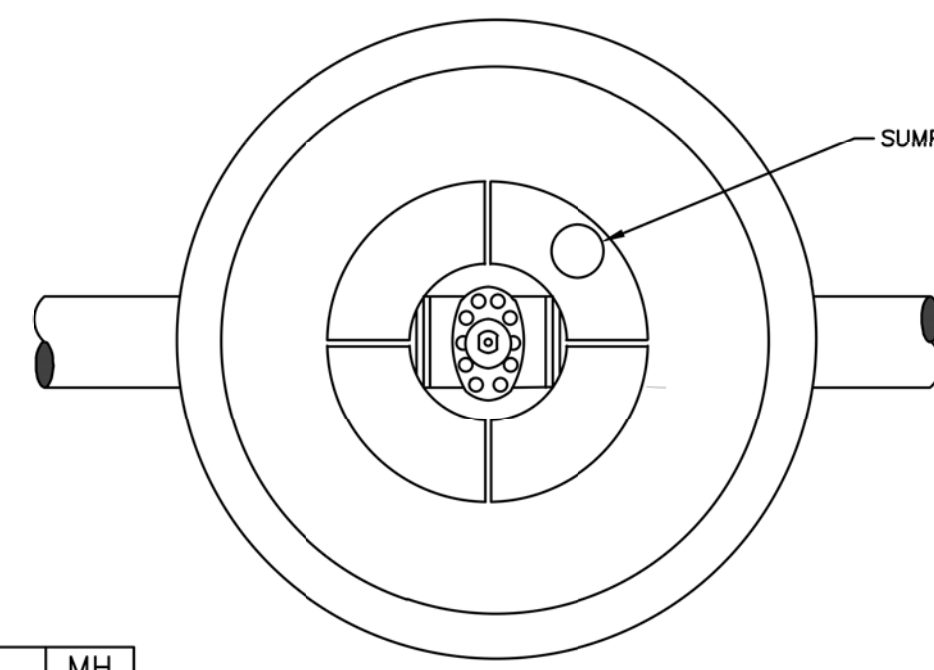
PIPE SIZE	MH DIA.
12" OR LESS	5'
16" TO 20"	6'
24" TO 30"	7'

NOTES:

1. ALL LIFT HOLES AND JOINTS SHALL BE MORTARED BOTH INSIDE AND OUTSIDE.
2. ALL JOINTS MADE WATER TIGHT WITH RUBBER GASKET JOINTS.
3. NO STEPS PERMITTED

CITY OF ANN ARBOR STANDARD SD-W-3
APPLIES TO: SEE PLANS FOR LOCATIONS

GATE WELL FOR MAIN 16" & SMALLER



NOTES:

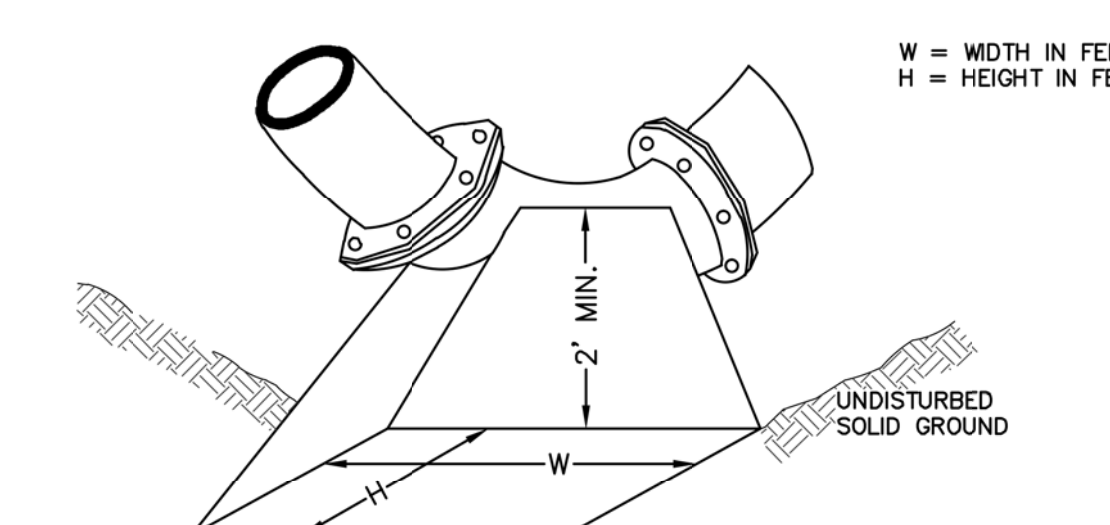
1. ALL LIFT HOLES AND JOINTS SHALL BE MORTARED BOTH INSIDE AND OUTSIDE.
2. ALL JOINTS MADE WATER TIGHT WITH RUBBER GASKET JOINTS.
3. NO STEPS PERMITTED

CITY OF ANN ARBOR STANDARD SD-W-3
APPLIES TO: SEE PLANS FOR LOCATIONS

GATE WELL FOR MAIN 16" & SMALLER

MINIMUM STANDARDS
REACTION BACKING: The Class "A" concrete at the Fitting face shall extend to within (2) inches of the bell and shall extend from the fitting face a minimum of (2) feet to the UNDISTURBED SOLID GROUND. The dimensions of the reaction backing (thrust block) at the face of the undisturbed solid ground shall be as shown in the Table below. If there isn't sufficient space for the installation of the "thrust block" without interference with other services, another arrangement satisfactory to the engineer shall be used, i.e. encasement.

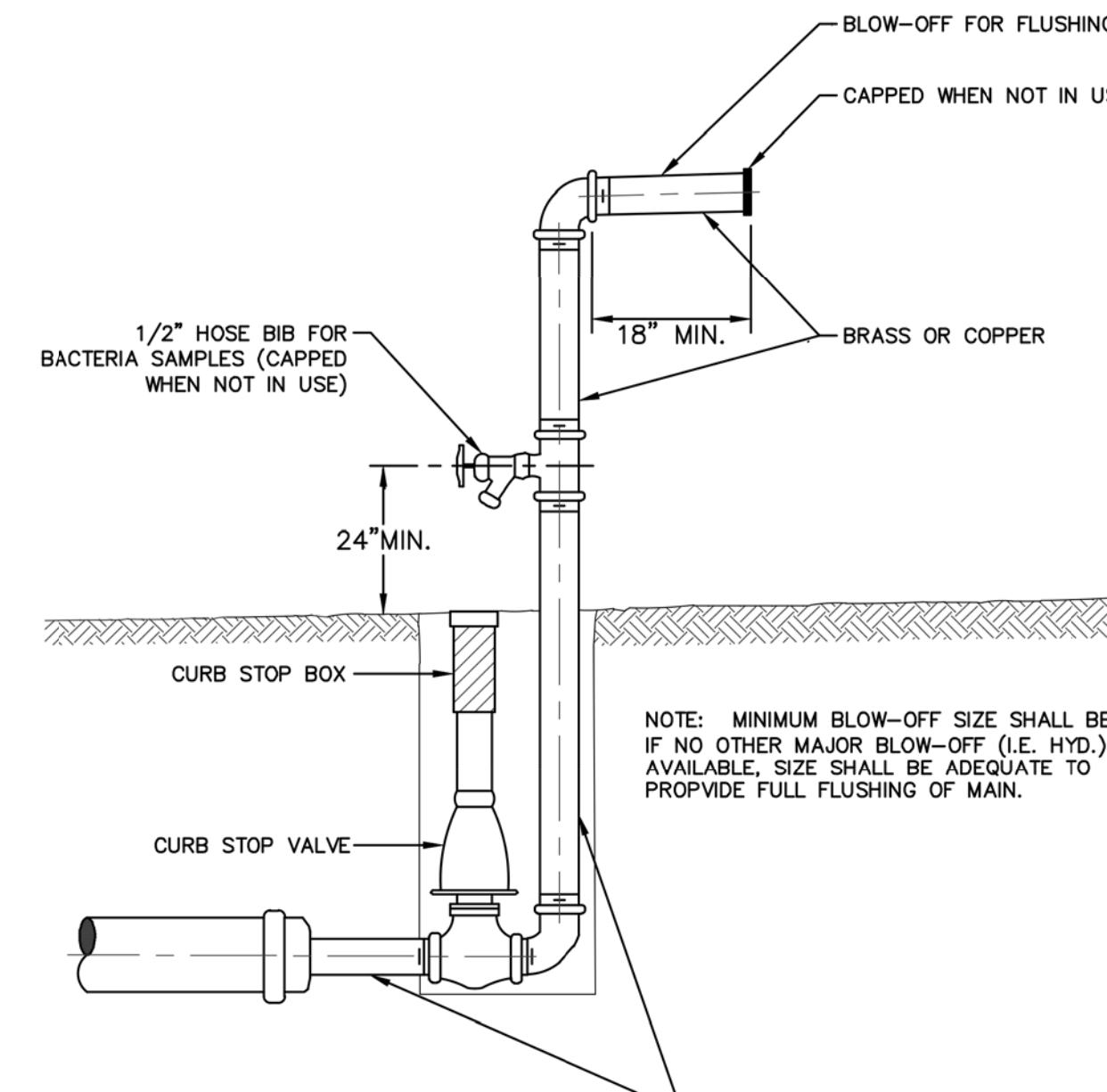
Fittings I.D.	Plug Tee Cross		Bends				Hydrant	
	W	H	90°	45°	22½°	11¼°	W	H
2.5	1	1	1	1	1			
4	1	1	1	1	1			
6	2	1.5	2	2	1	1	1	2
8	2.5	2	3.5	2	2	2	1	2.5
12	3.5	3	5.5	3	3.5	2.5	2	2
16	6	3.5	6	4	5	3	3.5	2
20	8	4	12	4	6	4	4	3
24	11	4	17	4	9	4	6	4
30	11	4	17	4	9	4	6	4



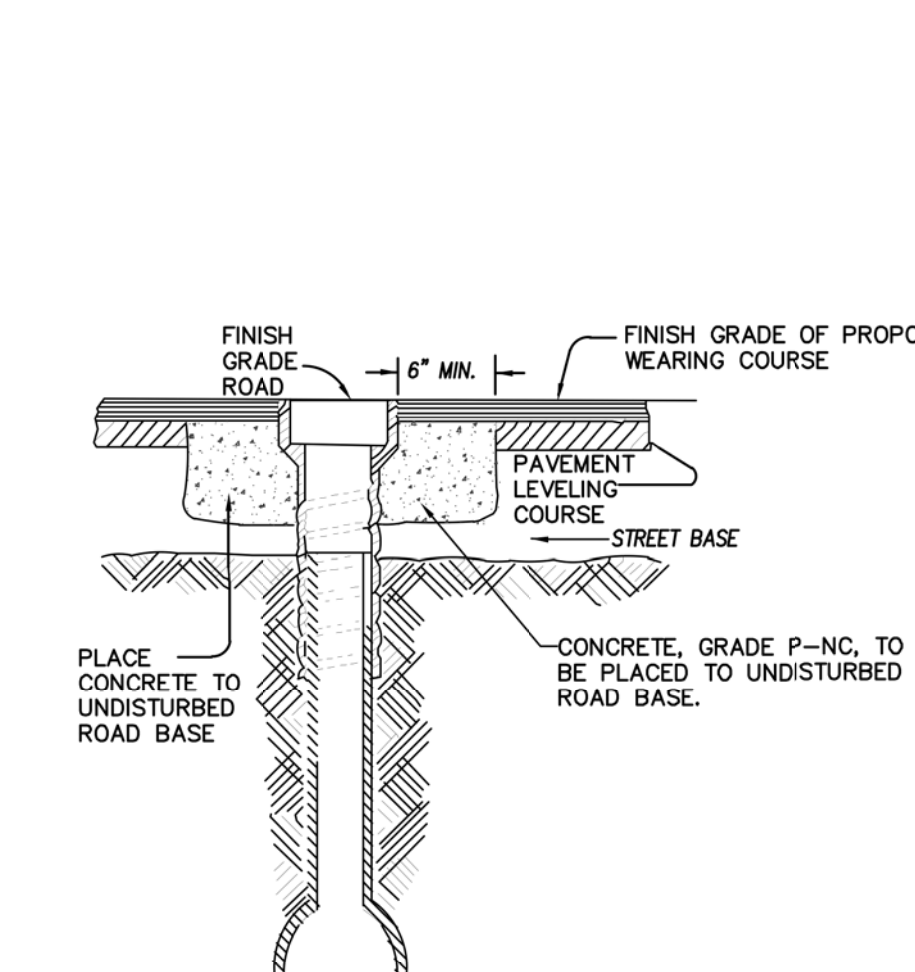
NOTE:
THESE ARE MINIMUM STANDARDS. WHERE SOIL CONDITIONS DICTATE, ADJUSTMENTS IN SIZE SHALL BE MADE BY THE PUBLIC SERVICES DIRECTOR.

CITY OF ANN ARBOR STANDARD SD-W-2
APPLIES TO: SEE PLANS FOR LOCATIONS

THRUST BLOCK



TEMPORARY TESTING BLOW OFF SD-W-7



NOTE:
RAISE CASTING TO PROPOSED FINISH STREET GRADE AFTER PLACEMENT OF LEVELING COURSE(S) AND PRIOR TO PLACING FINAL SURFACE COURSE

CITY OF ANN ARBOR STANDARD SD-GU-7
APPLIES TO: SEE PLANS FOR LOCATIONS

WATER VALVE BOX ADJUSTMENT



ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	FINAL REVIEW SUBMITTAL	PRELIMINARY PLAN SUBMITTAL	REV.	DESCRIPTION	DATE	DRAWN	CHECKED
APR. 22, 2015	MAR. 26, 2015	MAR. 13, 2015	JAN. 29, 2015					

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
CITY OF ANN ARBOR
WATER MAIN DETAILS

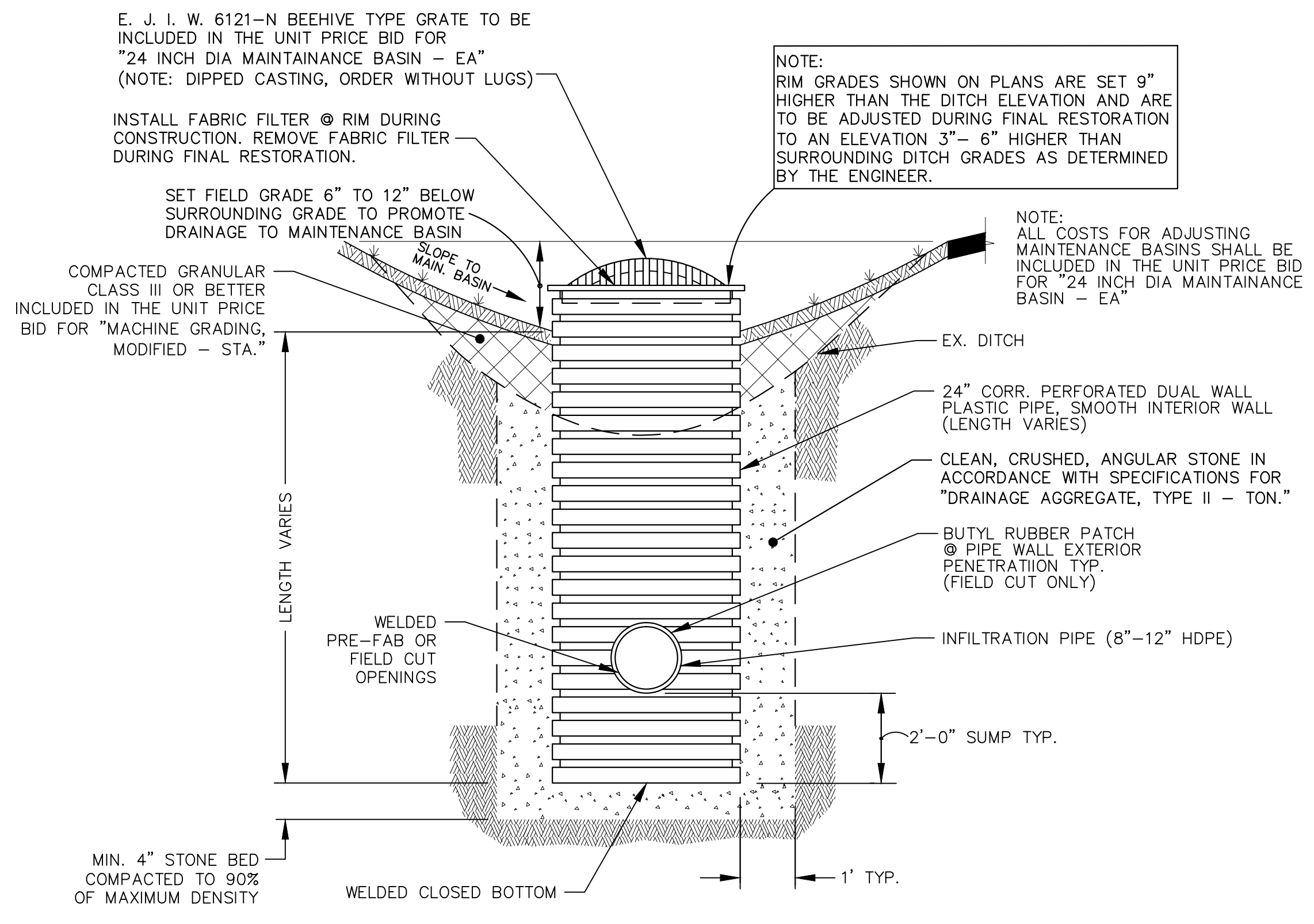
SCALE NOT TO SCALE
DRAWING No. DET-03
SHEET No.



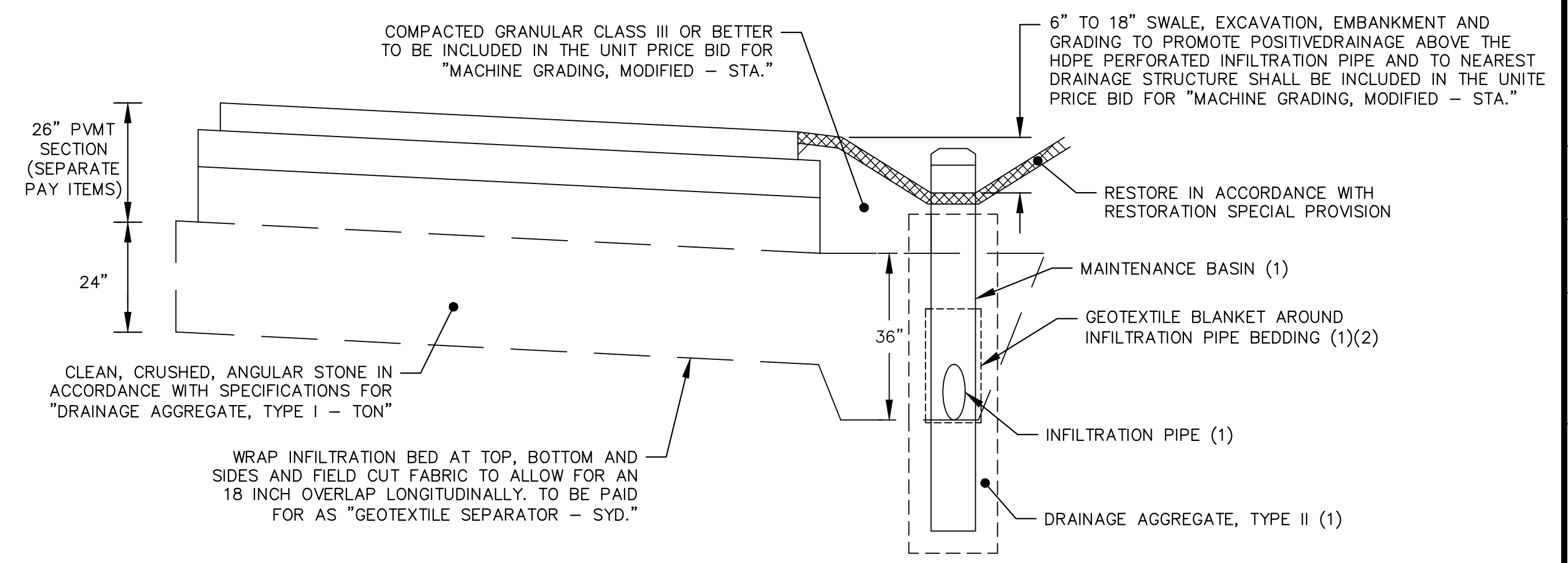
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
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JAN. 29, 2015	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/AMN	CEH

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
PROJECT DETAILS
INFILTRATION DETAILS
SCALE: NOT TO SCALE
DRAWING No. DET-04
SHEET No.

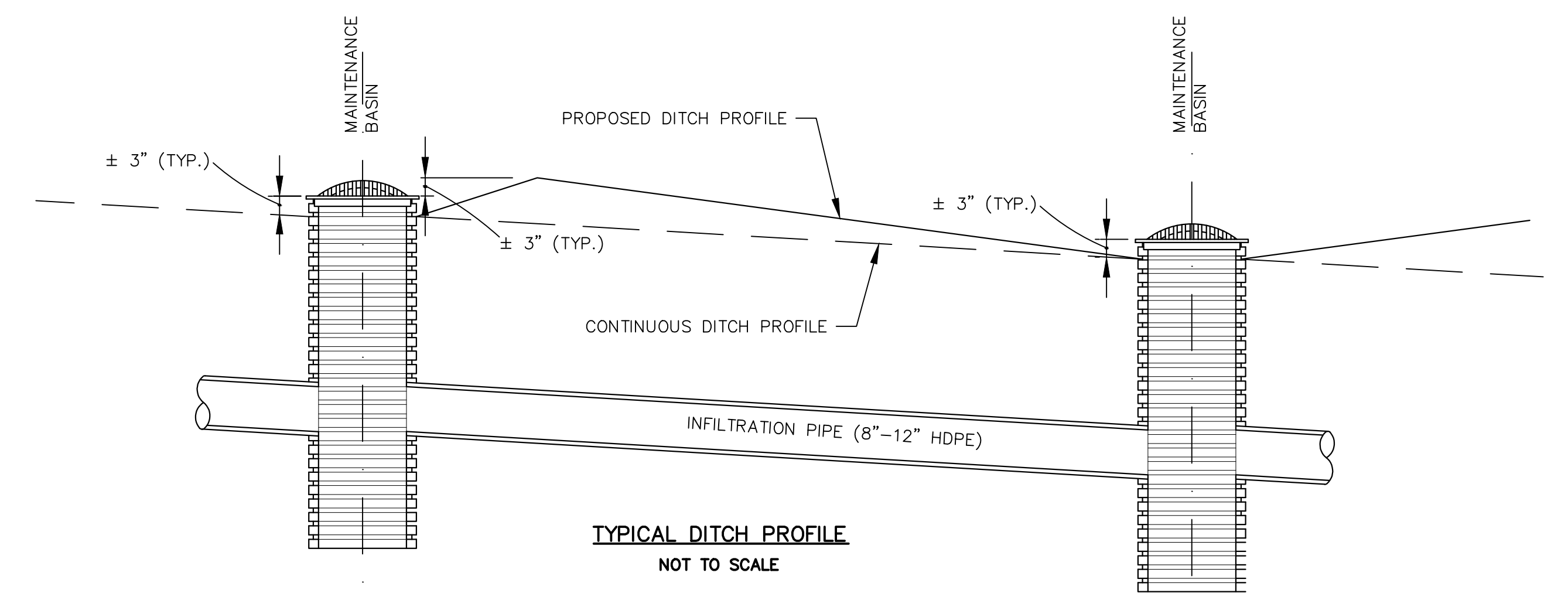


MAINTAINANCE BASIN DETAIL (MB)
NOT TO SCALE



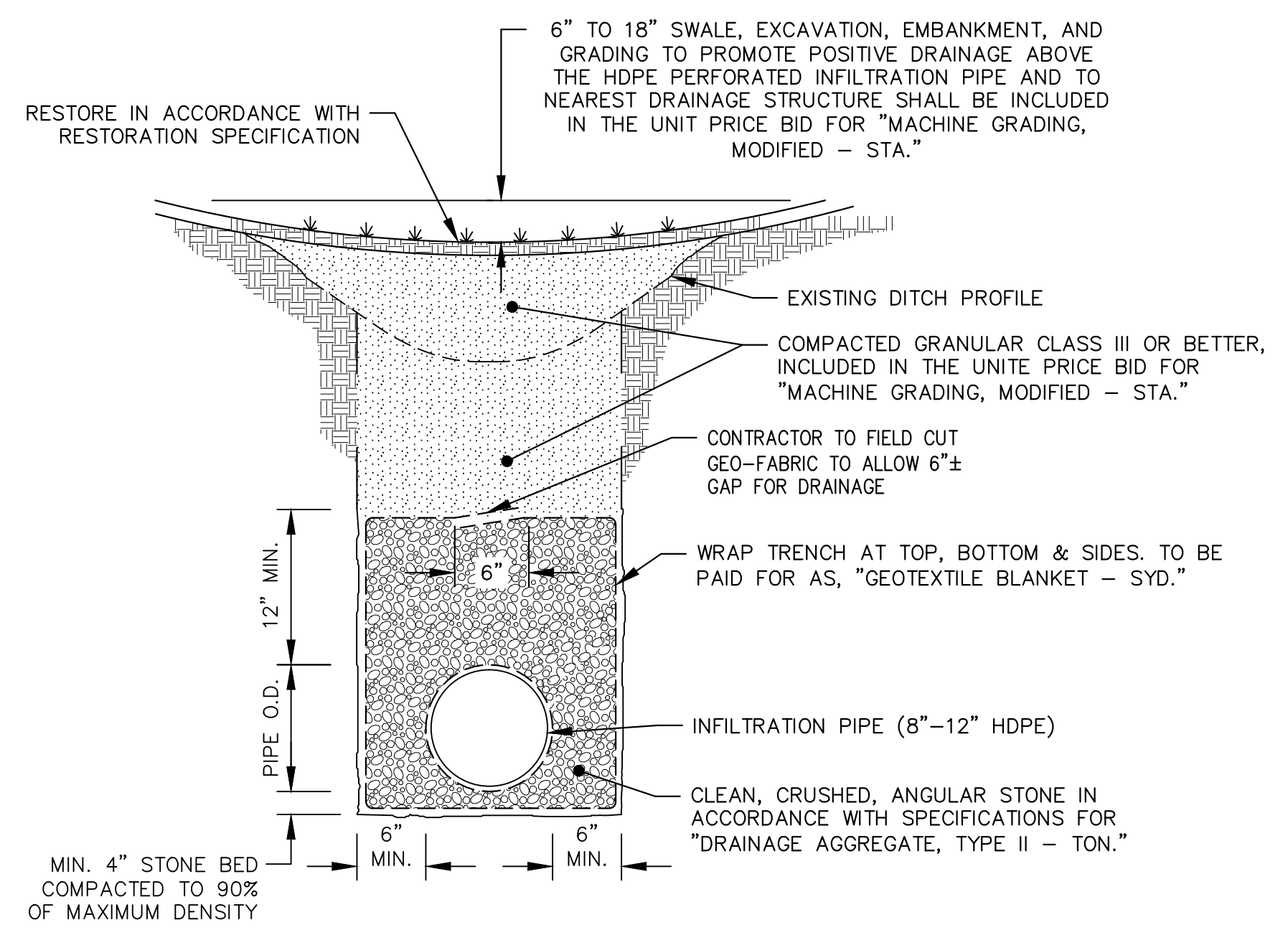
INFILTRATION BED DETAIL
NOT TO SCALE

- NOTE:
- (1) MAINTAINANCE BASIN AND INFILTRATION PIPE SHALL BE INSTALLED, BED AND BACKFILLED IN ACCORDANCE WITH THE SPECIAL DETAIL INCLUDED IN THESE DRAWINGS, INCLUDING THE INSTALLATION OF "DRAINAGE AGGREGATE, TYPE II" AND "GEOTEXTILE BLANKET" WHERE CALLED FOR.
 - (2) IF "DRAINAGE AGGREGATE, TYPE I" MEETS THE GRADATION REQUIREMENTS OF "DRAINAGE AGGREGATE, TYPE II" THE "GEOTEXTILE BLANKET" AROUND THE INFILTRATION PIPE WITHIN HTE INFILTRATION BED MAY BE OMITTED.

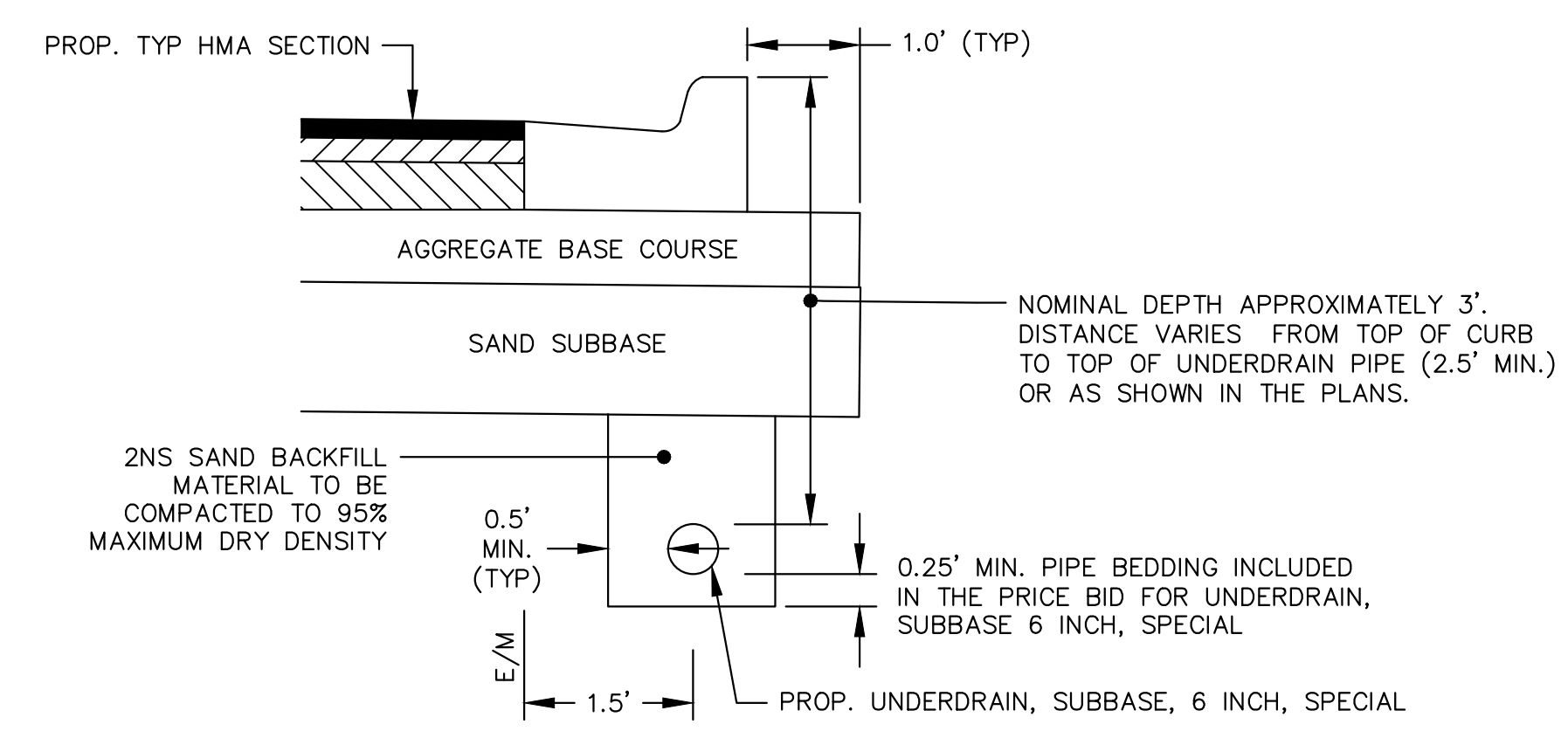


TYPICAL DITCH PROFILE
NOT TO SCALE

NOTE:
GRADING ABOVE THE INFILTRATION TRENCH TO THE PROPOSED DITCH SECTION AND PROFILE IS CONSIDERED INCLUDED IN THE UNIT BID PRICE FOR "MACHINE GRADING, MODIFIED - STA"

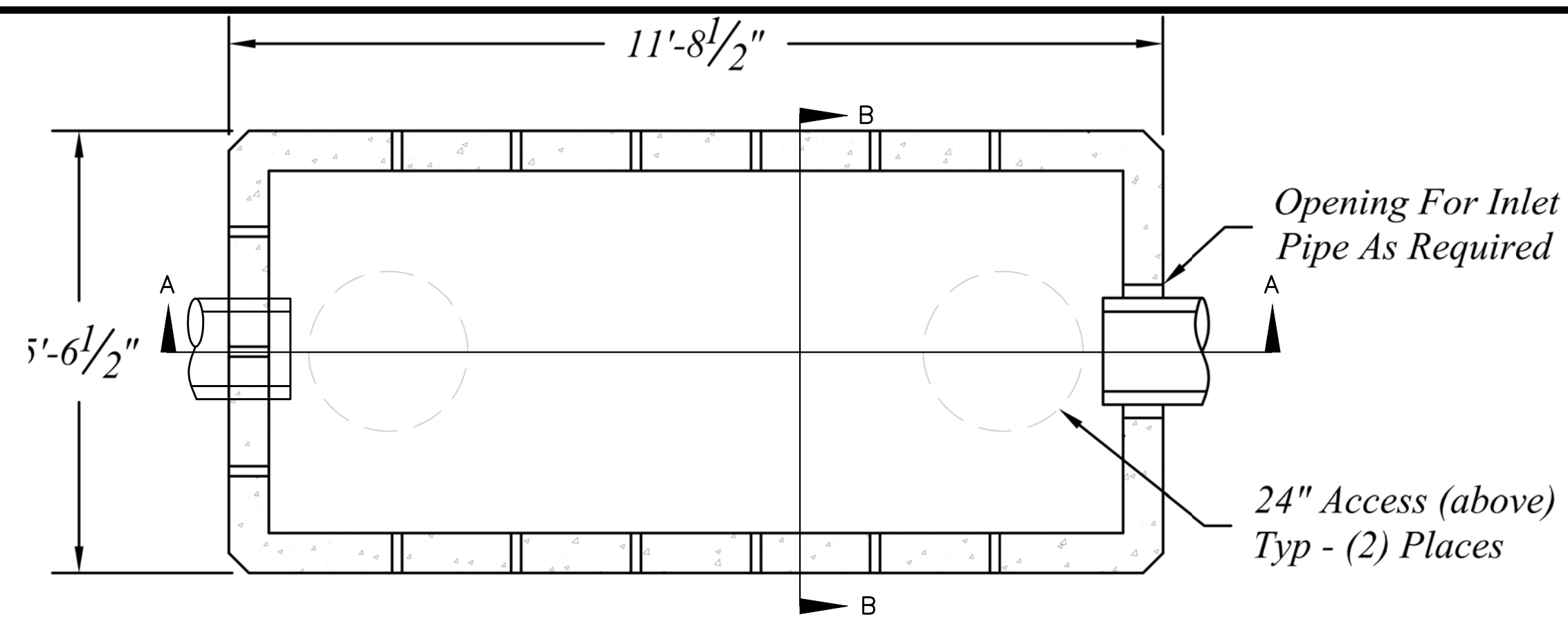


INFILTRATION TRENCH SECTION (INFILTRATION PIPE)
NOT TO SCALE



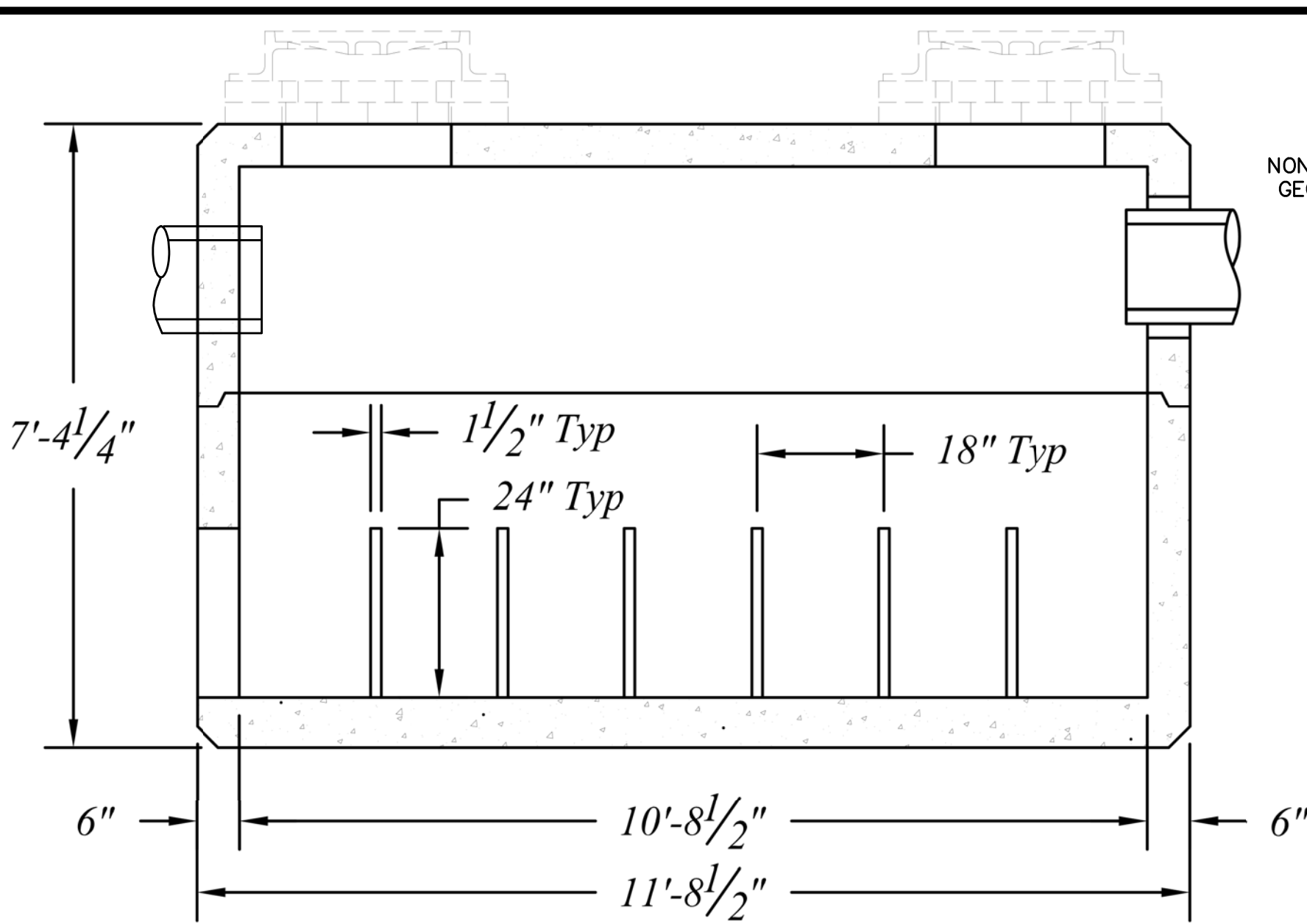
TRENCH DETAIL FOR UNDERDRAIN
NOT TO SCALE

- UNDERDRAIN NOTES:
1. FOR PAVEMENT BASE AND SUBBASE THICKNESS, SEE TYPICAL SECTIONS.
 2. TRENCH DETAILS SHOW TYP OF BACKFILL AND SURFACE RESTORATION ONLY.
 3. ALL TRENCHING TO CONFORM TO ALL APPLICABLE M.I.O.S.H.A. STANDARDS.
 4. BASED ON CITY OF ANN ARBOR STANDARD SD-TD-10.

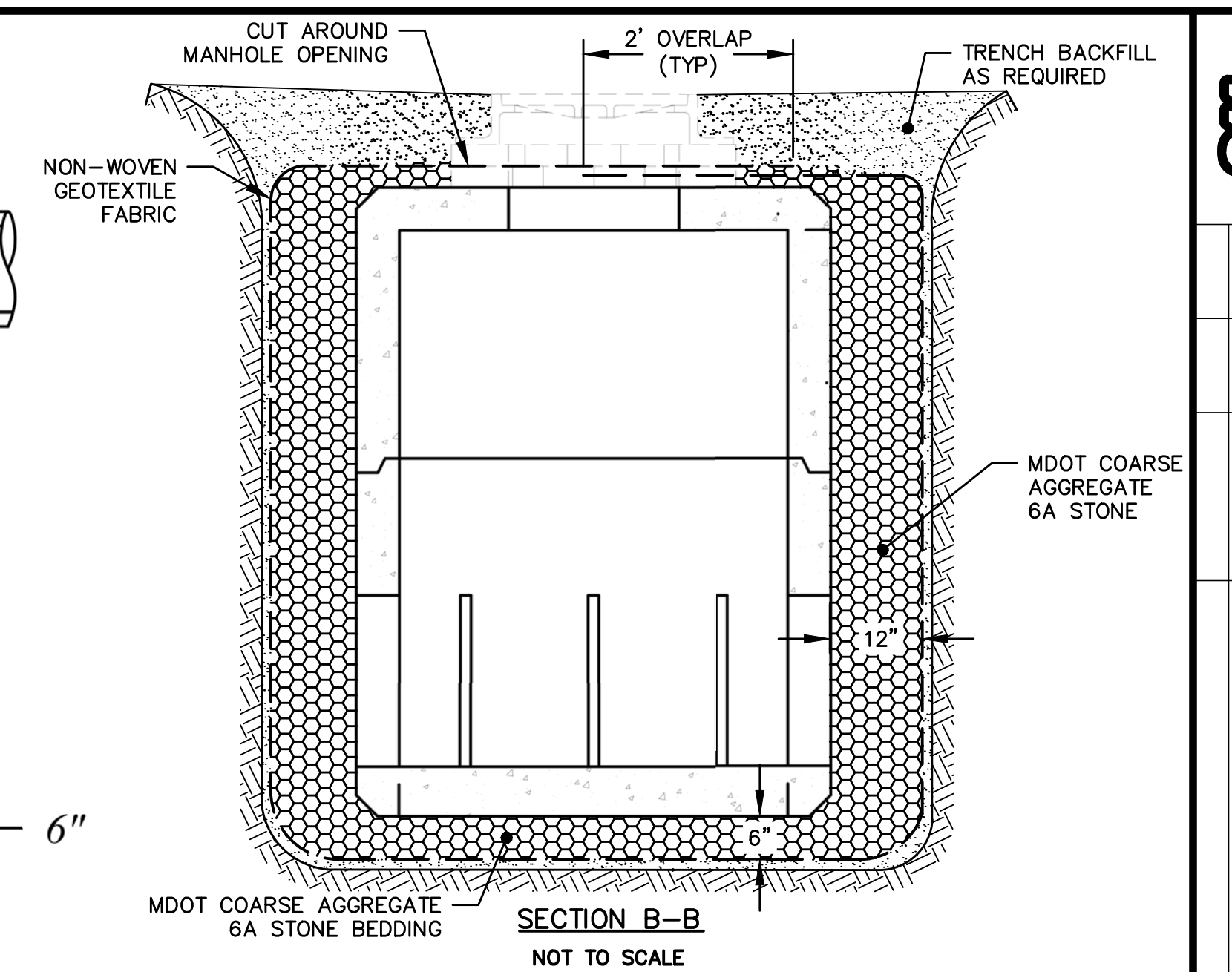


ENERGY DISSIPATION STRUCTURE, 12' X 5'
NOT TO SCALE

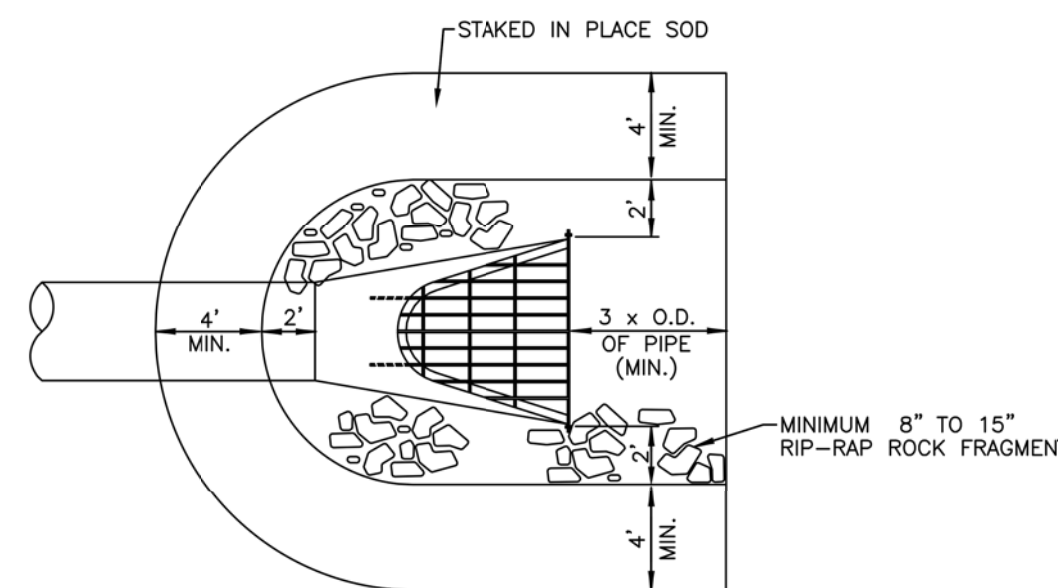
- NOTES:
1. SECTIONS TO BE MANUFACTURED PER AASHTO AND ASTM SPECIFICATIONS W/HS-25 LOADING AND 0.01' TO 3.0' OF EARTH COVER.
 2. CONCRETE: 5000 PSI @ 28 DAYS
 3. REINFORCEMENT PER ASTM A-615 & A-496
 4. COVER TO BE SEALED W/ 1 1/2" EZ-STIL OR EQUAL.
 5. PROVIDE SHOP DRAWINGS AND SUPPORTING CALCULATIONS FOR DESIGN OF STRUCTURE TO MEET HS-20 TRAFFIC LOADING, SIGNED & SEALED BY A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF MICHIGAN.



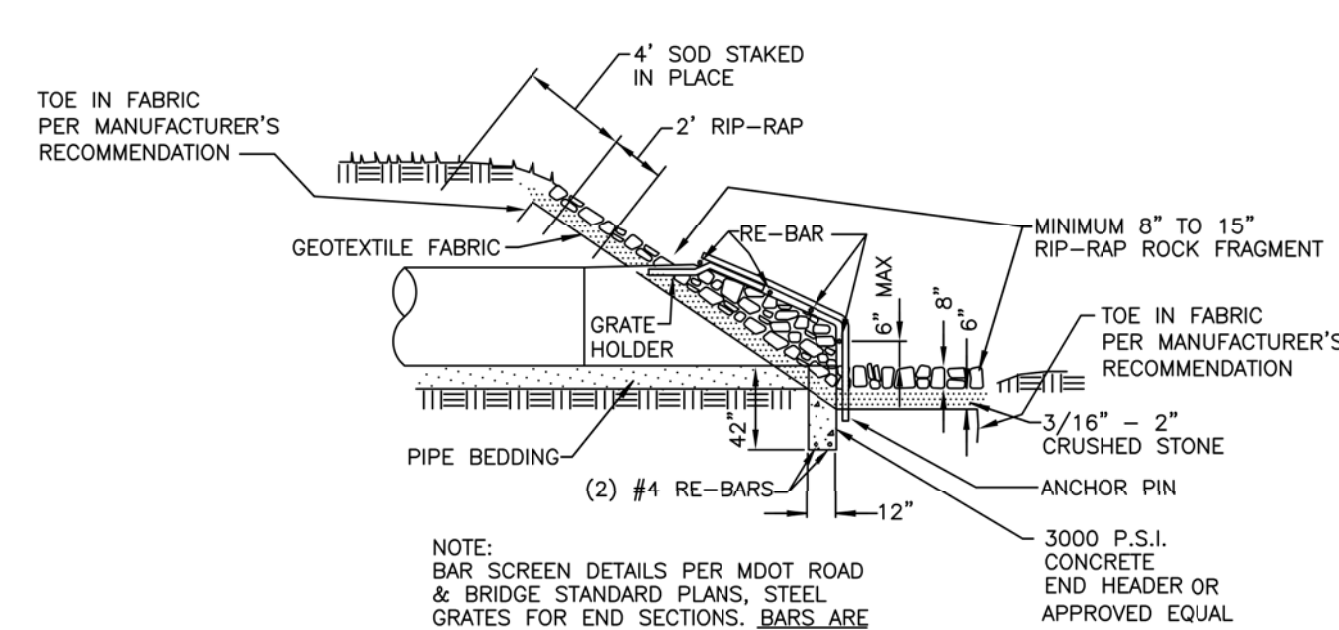
SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE

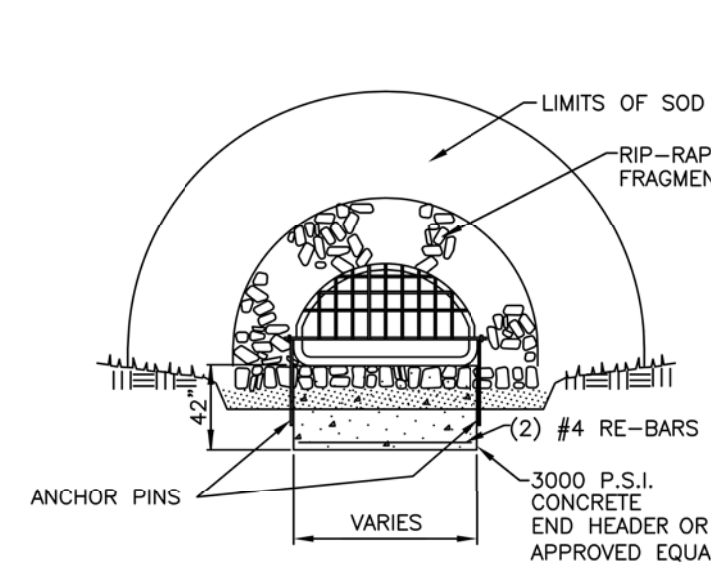


PLAN VIEW

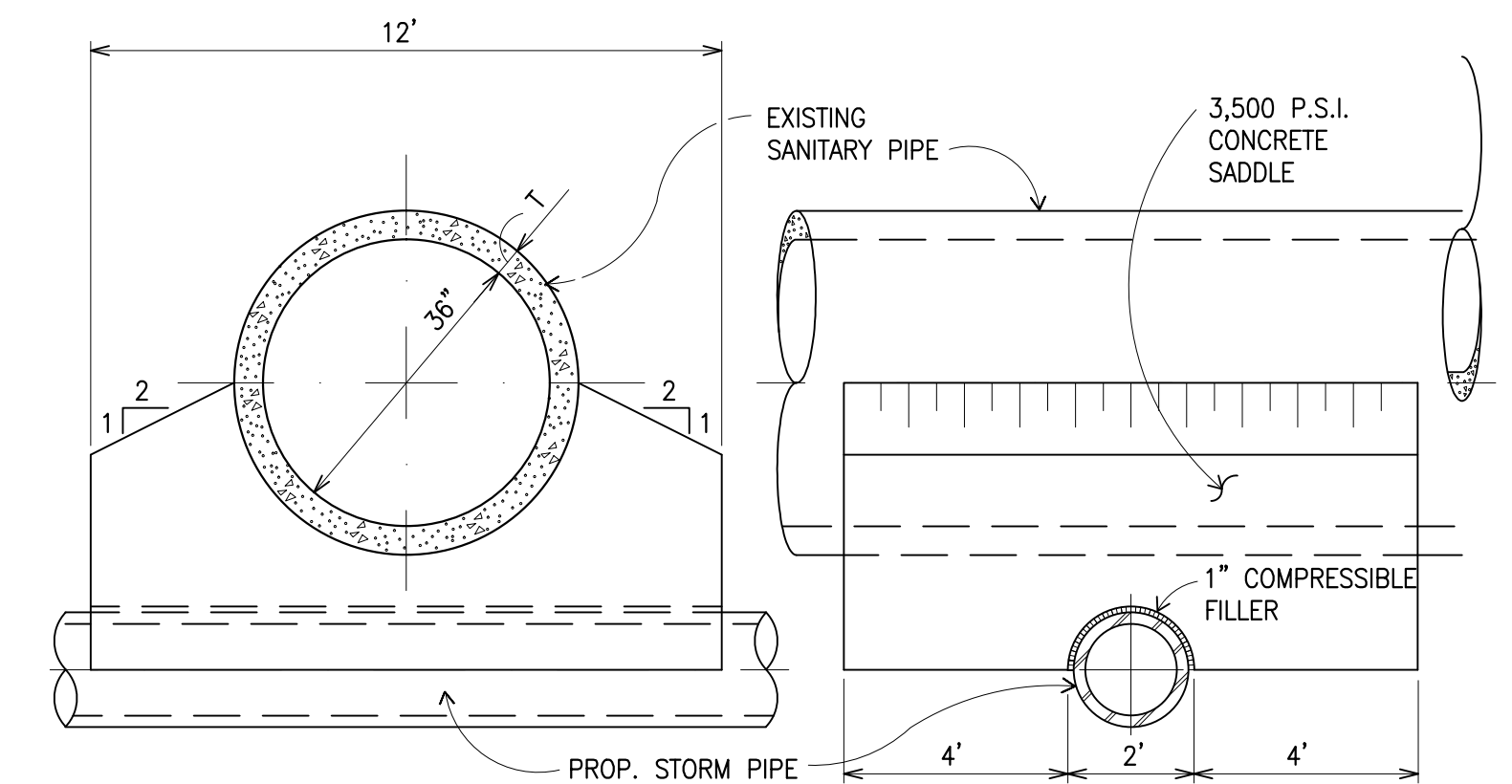


PROFILE VIEW

END SECTION AND BAR SCREEN DETAIL
NOT TO SCALE

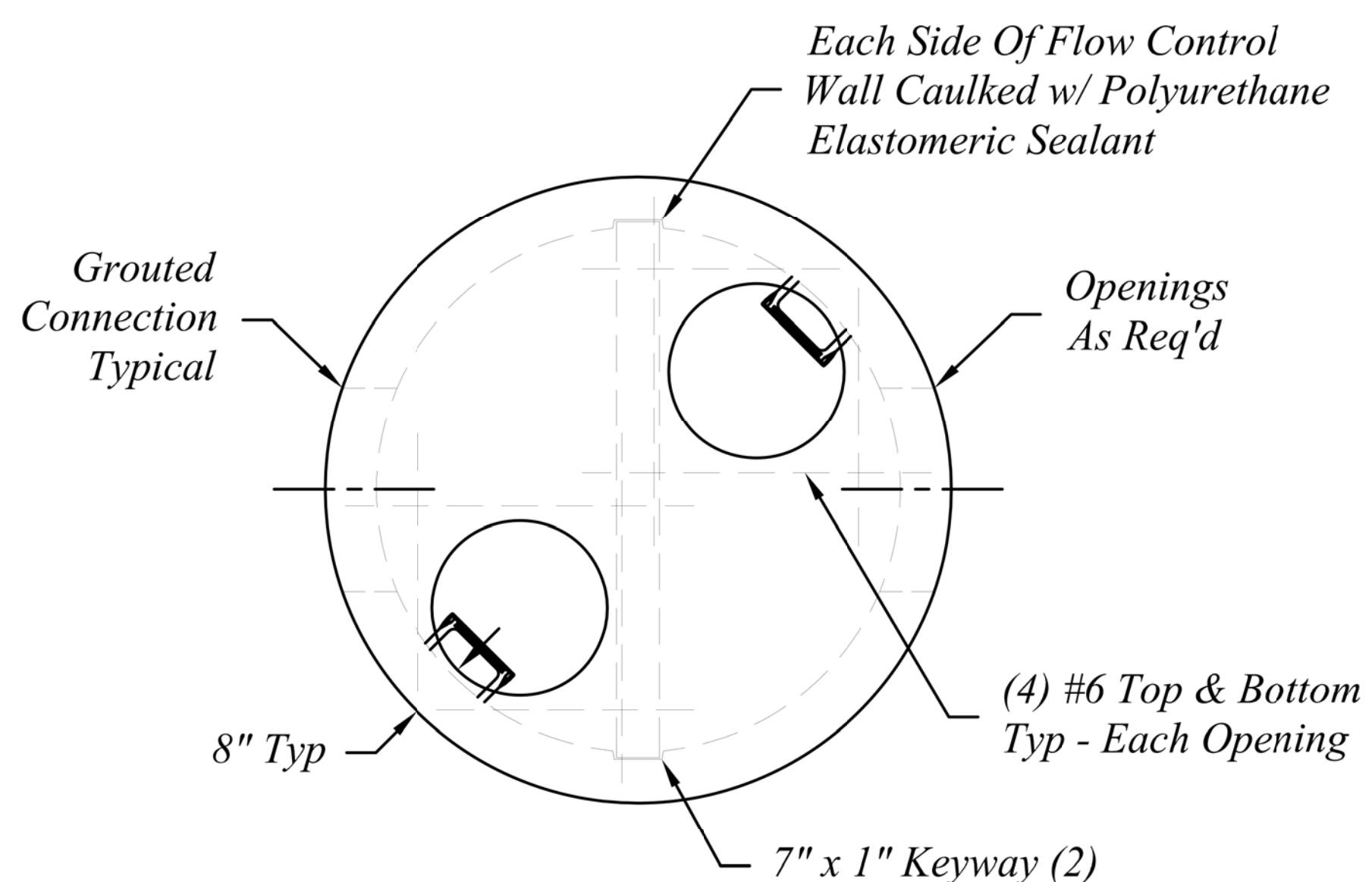


END VIEW

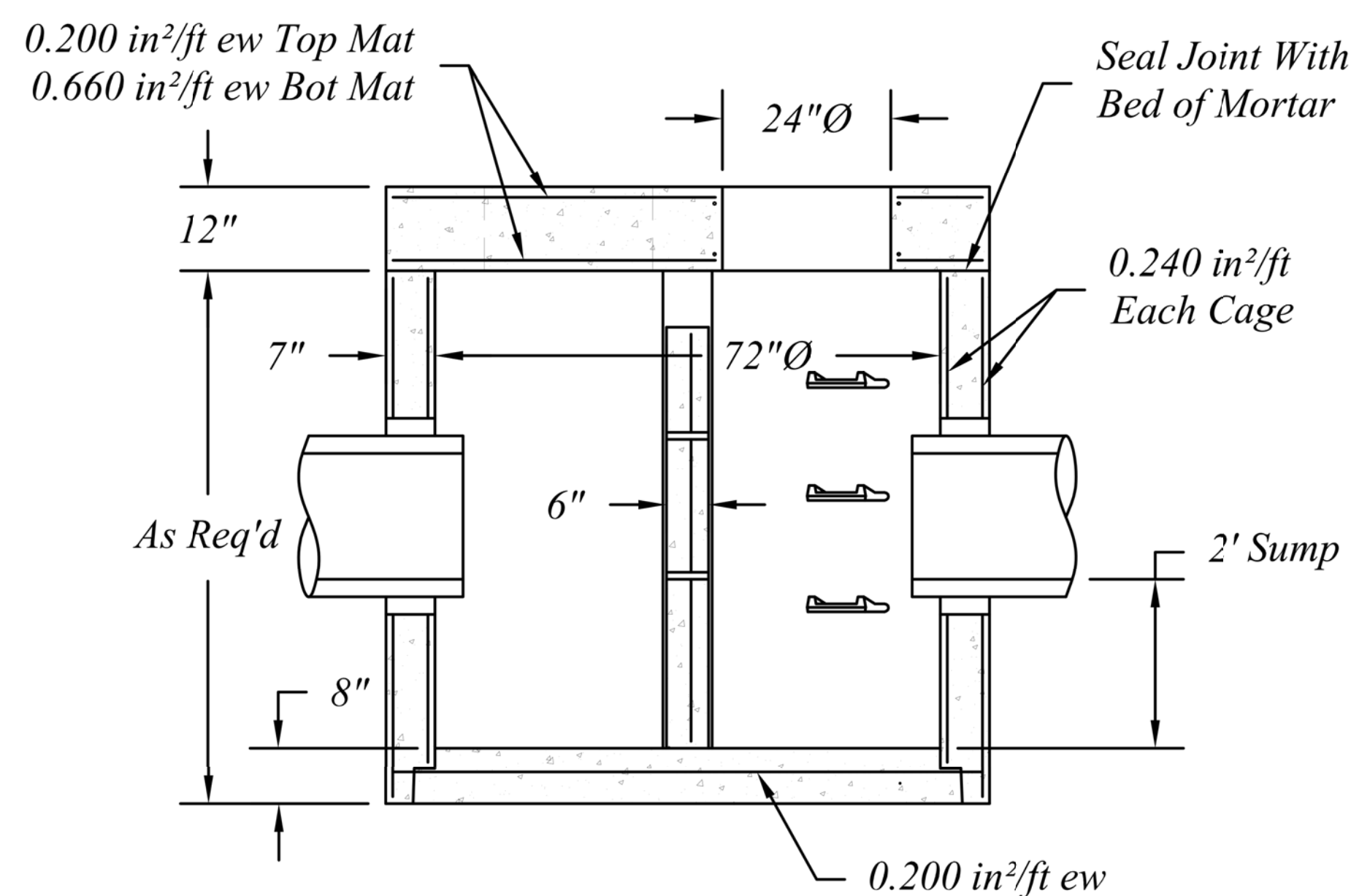


COMPRESSIBLE FILLER SHALL BE NEOPRENE CONFORMING TO A.S.T.M. D1056, CLASS SB0-11 & C509.

CONC. SADDLE DETAIL
NOT TO SCALE




PLAN VIEW



PROFILE VIEW

R-9
OUTLET CONTROL STRUCTURE DETAIL
NOT TO SCALE

- NOTES:
1. SECTIONS TO BE MANUFACTURED PER ASTM C-478 SPECIFICATIONS.
 2. REINFORCING SHOWN FOR SCHEMATIC ONLY. ALL STEEL AREAS ARE MINIMUMS.
 3. CONTRACTOR TO SEAL BETWEEN PRECAST WALL & BASE WITH BUTYL ROPE.
 4. INLET & OUTLET PIPE SIZES VARIES.
 5. NUMBER, SIZE AND ELEVATION OF HOLES IN THE FLOW RESTRICTOR WALL SHALL BE IN ACCORDANCE WITH THE CITY OF ANN ARBOR.
 6. PROVIDE SHOP DRAWINGS AND SUPPORTING CALCULATIONS FOR DESIGN OF STRUCTURE TO MEET HS-20 TRAFFIC LOADING, SIGNED & SEALED BY A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF MICHIGAN.



Know what's below.
Call before you dig.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
APR. 22, 2015	ISSUED FOR BIDS	ALP/AMN	CEH	
MAR. 26, 2015	FINAL PLAN SUBMITTAL	ALP/AMN	CEH	
MAR. 13, 2015	FINAL REVIEW SUBMITTAL	ALP/AMN	CEH	
JAN. 29, 2015	PRELIMINARY PLAN SUBMITTAL	ALP/AMN	CEH	

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

GEDDES AVENUE IMPROVEMENTS

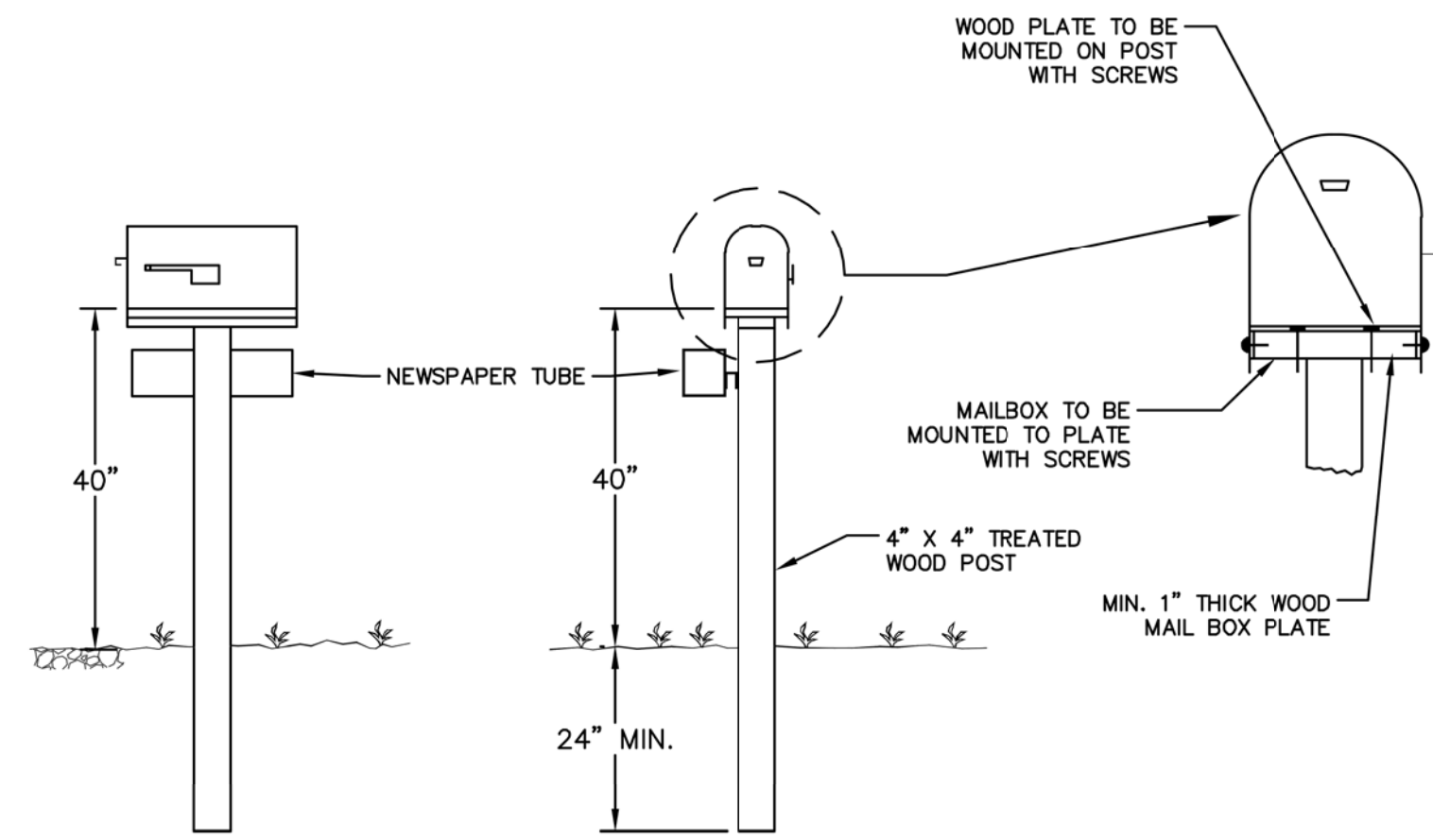
PROJECT DETAILS

STORM STRUCTURE DETAILS

SCALE: NOT TO SCALE

DRAWING No. DET-05

SHEET No.

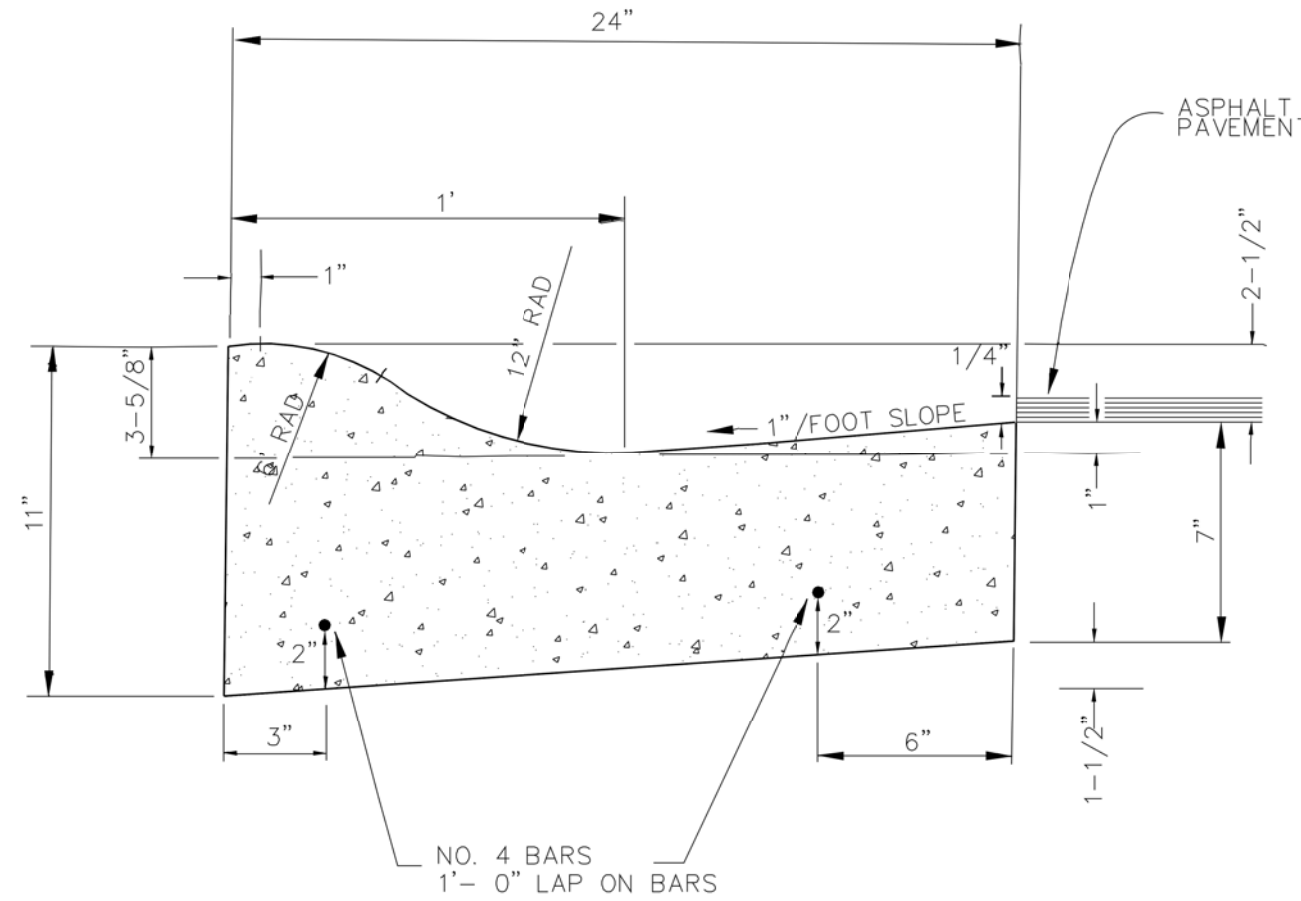


NOTES:

1. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH CURRENT FEDERAL POSTAL SERVICE SPECIFICATIONS.
2. PERMANENT MAILBOX RELOCATION REQUIRES THE SALVAGED MAILBOX TO BE INSTALLED ON A NEW PRESSURE-TREATED 4" X 4" POST AND WILL BE PAID FOR AS "POST, MAILBOX, MODIFIED -EA."
3. TEMPORARY MAILBOX RELOCATION MAY REQUIRE THE USE OF A NEW POST OR THE RE-USE OF EXISTING POST WILL BE PERMITTED IF IT REMAINS UNDAMAGED. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE ITEM OF WORK "MACHINE GRADING, MODIFIED".
4. WHEN RELOCATING NEWSPAPER TUBES, THE RE-USE OF THE EXISTING POST WILL BE ALLOWED IF IT REMAINS UNDAMAGED. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE ITEM OF WORK "MACHINE GRADING, MODIFIED".

**MAILBOX/NEWSPAPER TUBE
INSTALLATION AND RELOCATION**

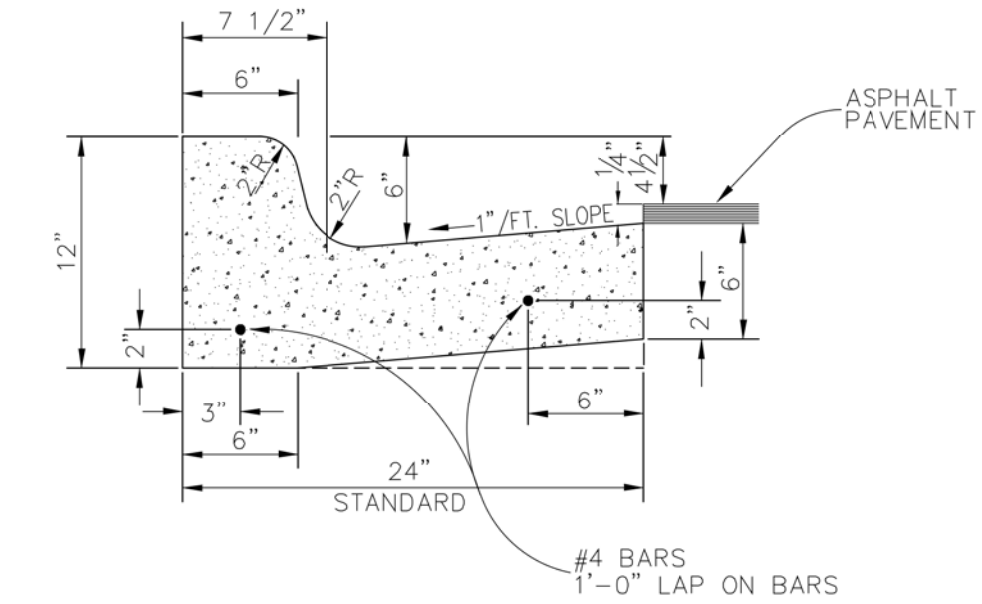
NOT TO SCALE



NOTE: FRONT EDGE OF INLET CASTINGS SHALL BE FLUSH WITH FRONT EDGE OF GUTTER (EDGE-OF-METAL)

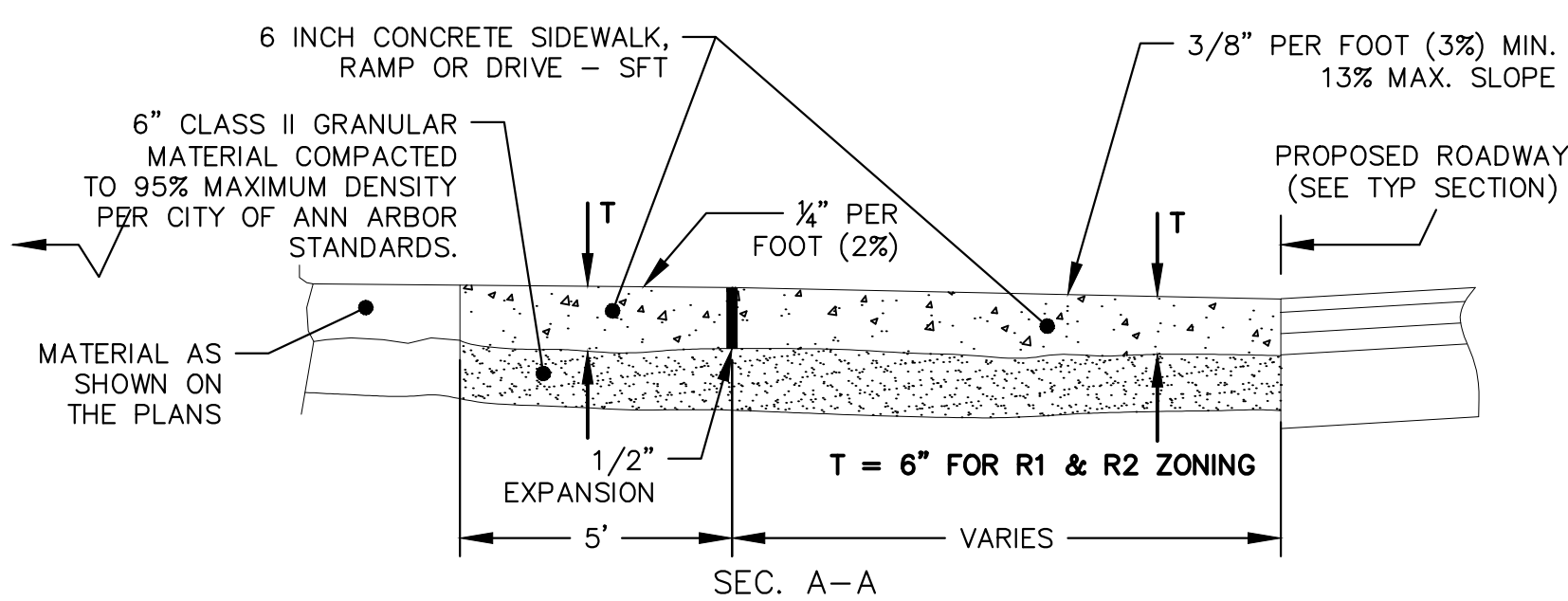
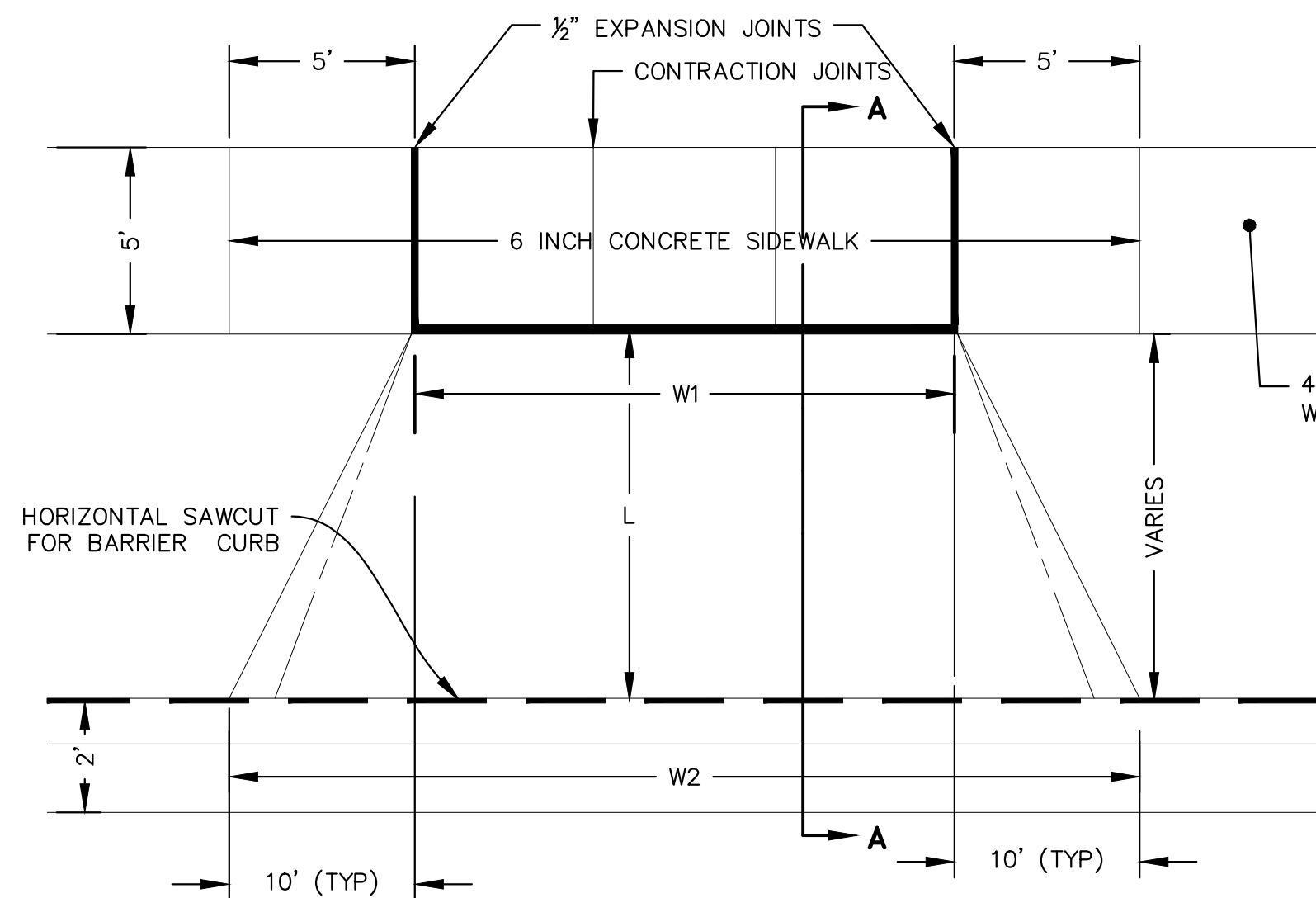
**MOUNTABLE CURB & GUTTER
(SD-R-2)**

NOT TO SCALE



**BARRIER CURB & GUTTER
(SD-R-1)**

NOT TO SCALE



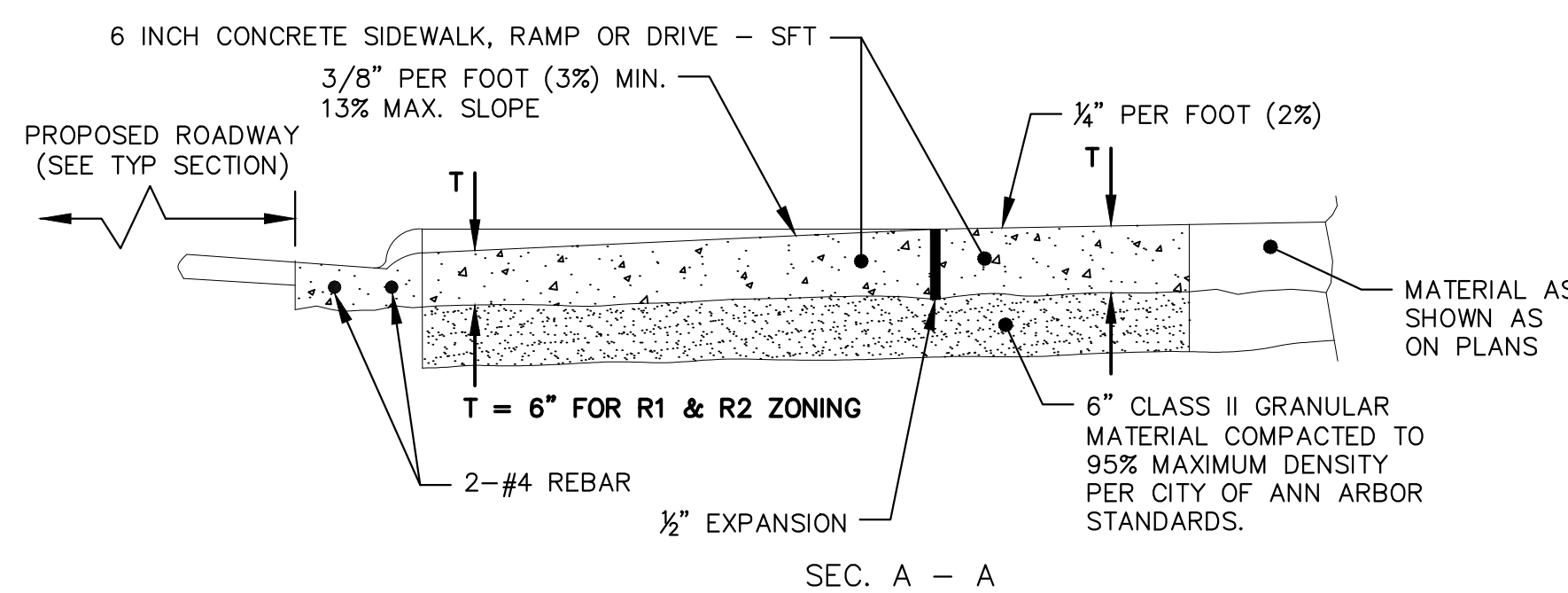
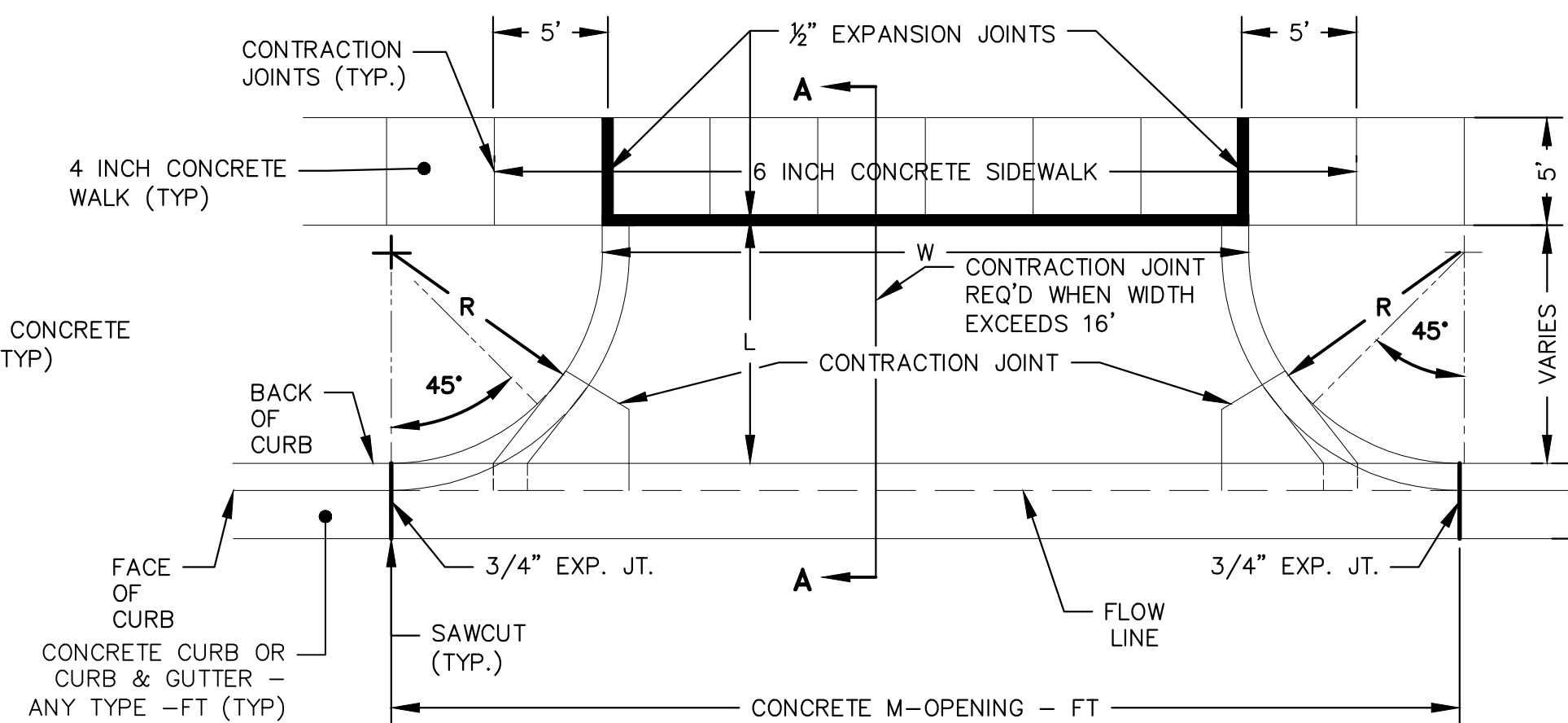
NOTE:
W1 (DRIVE OPENING WIDTH) AND
W2 (CURB CUT WIDTH)
AS REQUIRED FOR ZONING
BY CITY CODE.

MEASUREMENT OF AREA:
 $\frac{1}{2} (W1+W2) \times L =$

NOTE:
DRIVE APPROACH TO BE
CLASS 'A' CONCRETE

**TYPE 'L' DRIVE APPROACH, MODIFIED
(FOR USE ON STREETS WITH HMA SHOULDER)**

NOT TO SCALE

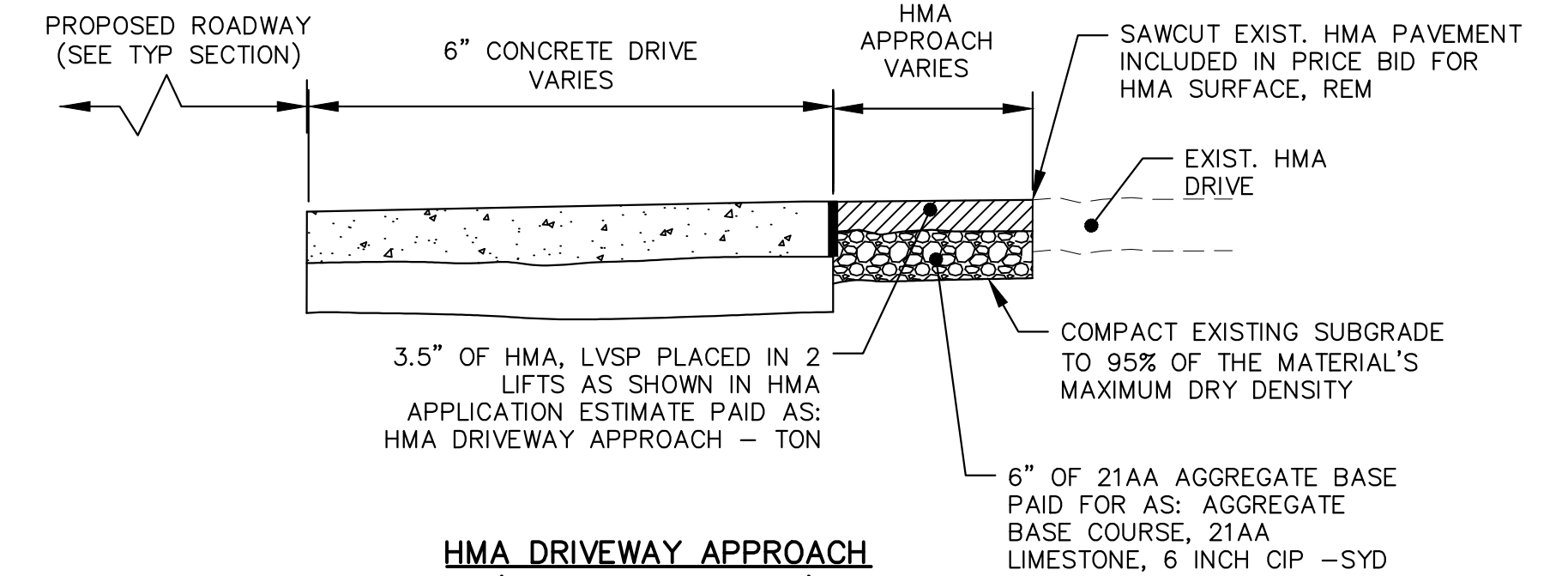


NOTE:
R (RADIUS) AND
W (DRIVE WIDTH)
AS REQUIRED FOR ZONING
BY CITY CODE.

MEASUREMENT OF AREA:
 $W \times L = \text{AREA}$

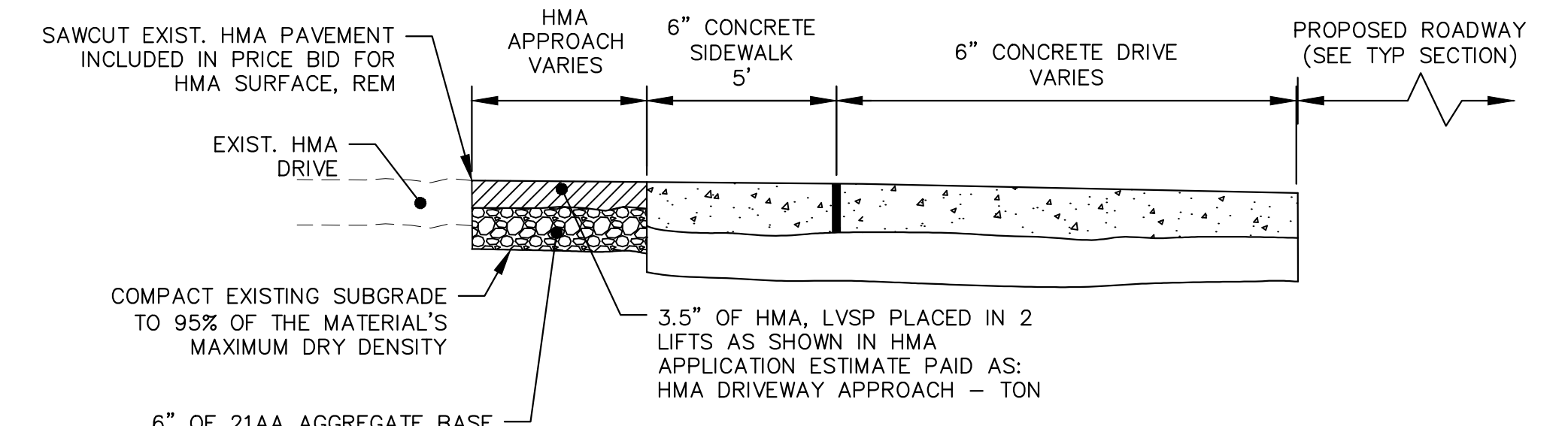
**TYPE 'M' DRIVE APPROACH, MODIFIED
(FOR USE ON ASPHALT STREETS WITH BARRIER CURB)**

NOT TO SCALE



**HMA DRIVEWAY APPROACH
(WITH NO SIDEWALK)**

NOT TO SCALE



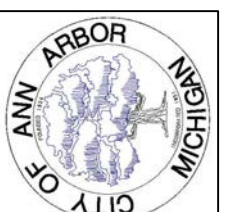
**HMA DRIVEWAY APPROACH
(WITH SIDEWALK)**

NOT TO SCALE



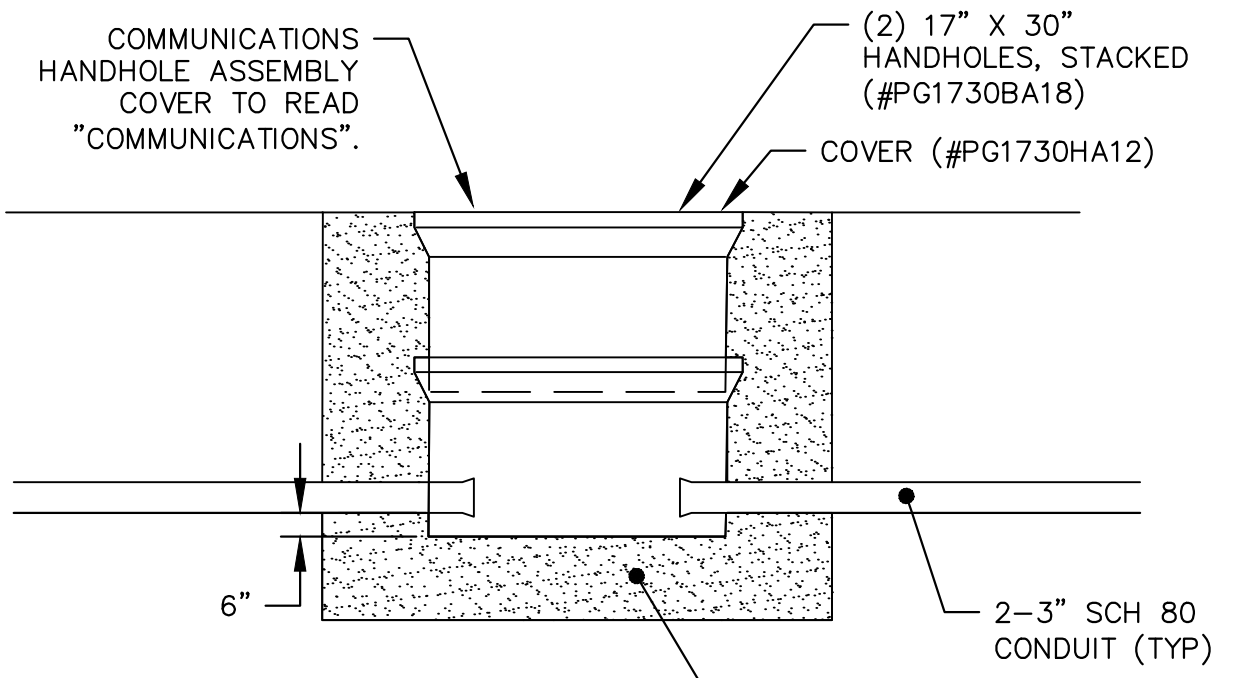
ISSUED FOR BIDS	APR. 22, 2015	ALP/AMN	CEH	CHECKED
FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/AMN	CEH	
FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/AMN	CEH	
PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/AMN	CEH	
REV. DESCRIPTION	DATE	BY	CHKD	DATE

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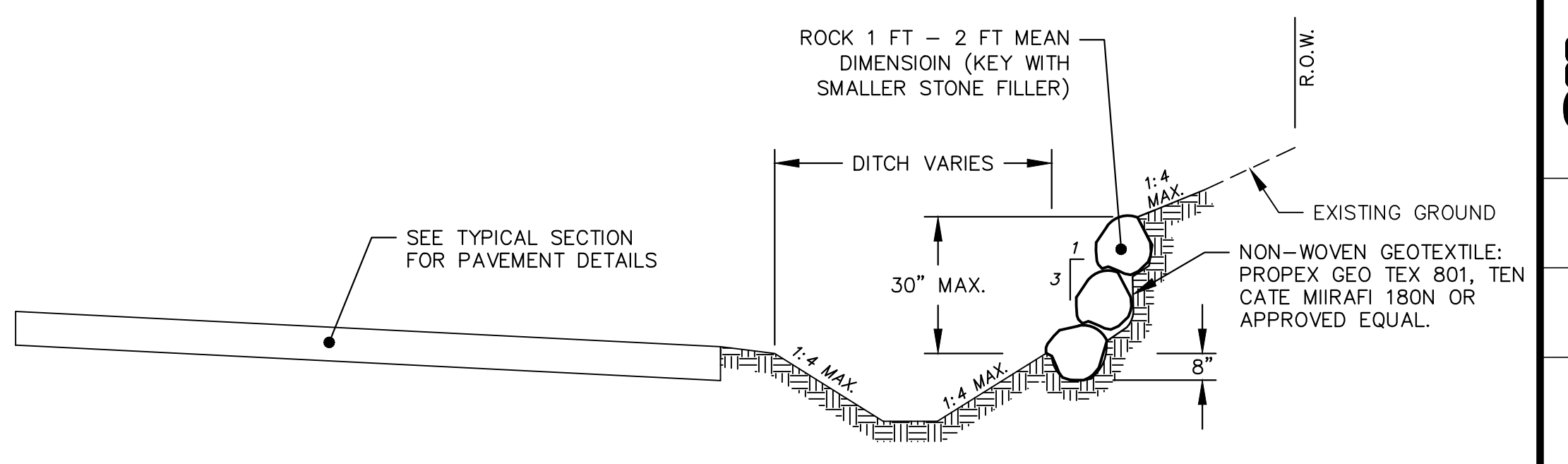
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
PROJECT DETAILS
DRIVEWAY DETAILS AND CURB & GUTTER DETAILS

SCALE: NOT TO SCALE
DRAWING No. DET-06
SHEET No.

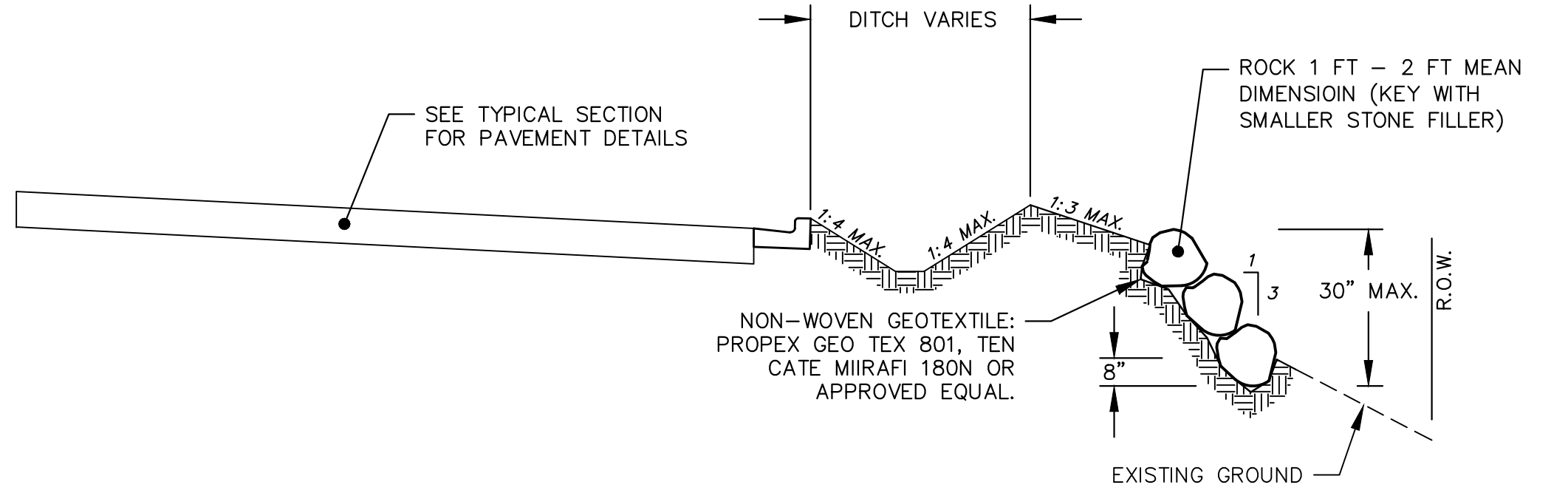


- INSTALLATION NOTES:**
1. INSTALL AT LOCATIONS AS INDICATED ON PLANS OR AS DIRECTED BY THE ENGINEER.
 2. THE CONDUIT SHALL BE INSTALLED 2 FT OFF EDGE OF PAVEMENT IN A SECTIONS WITHOUT CURB AND GUTTER OR OFF THE BACK OF CURB AS SHOWN IN THE TYPICAL SECTIONS OR AS DIRECTED BY THE ENGINEER.
 3. THE CONDUIT ENDS IN THE HANDHOLE SHALL BE 6 INCHES ABOVE THE BOTTOM OF THE HANDHOLE WITH BELLS.

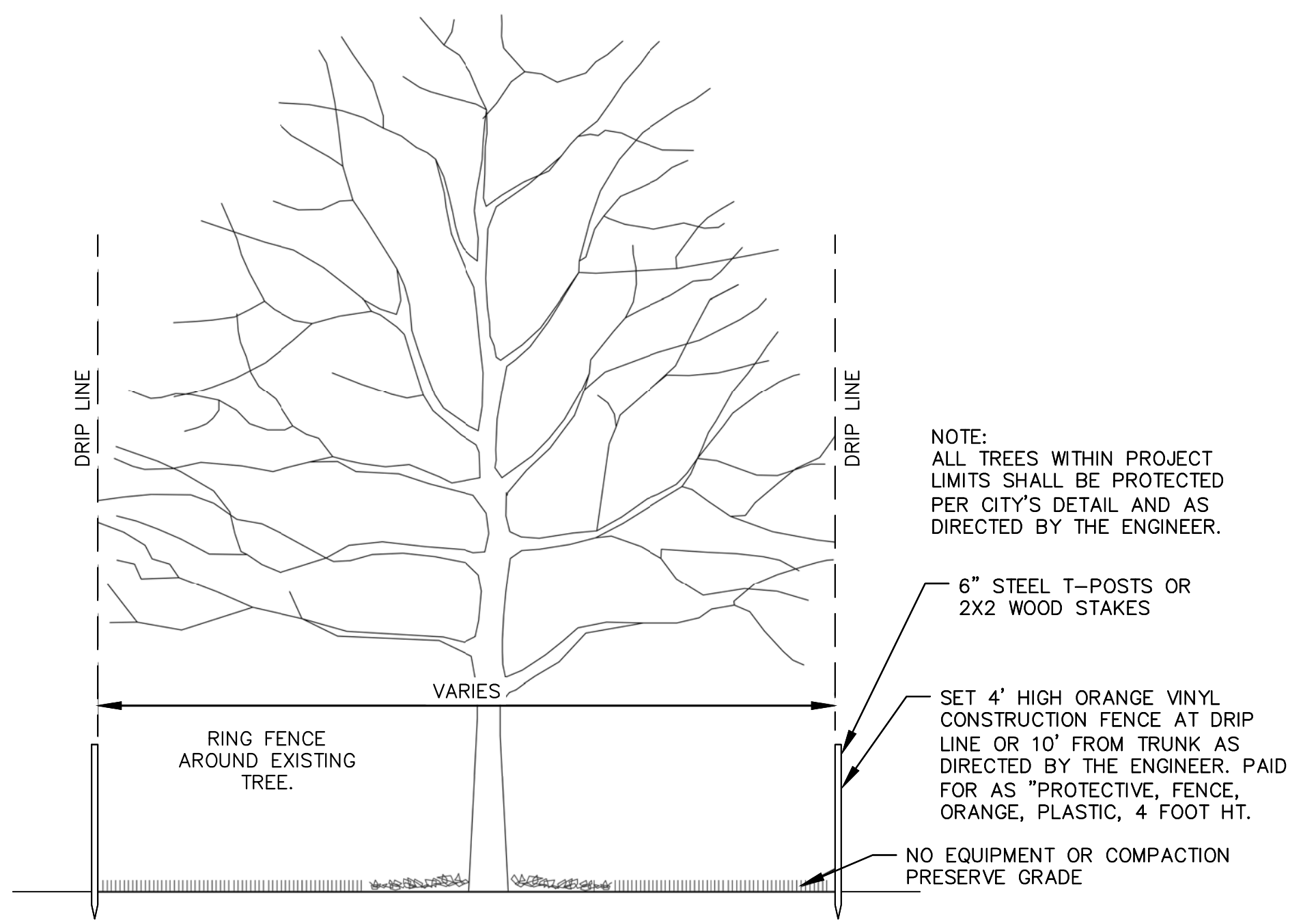
COMMUNICATIONS HANDHOLE ASSEMBLY
NOT TO SCALE



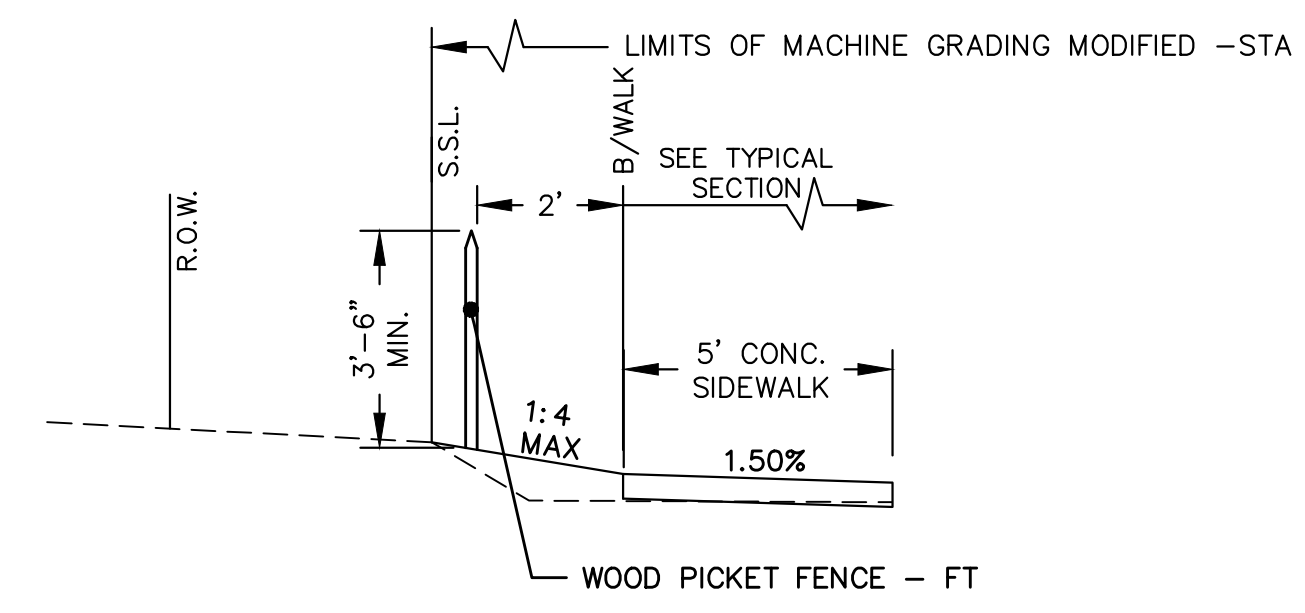
NATURAL BOULDER RETAINING WALL (IN SHOULDER SECTION)
NOT TO SCALE



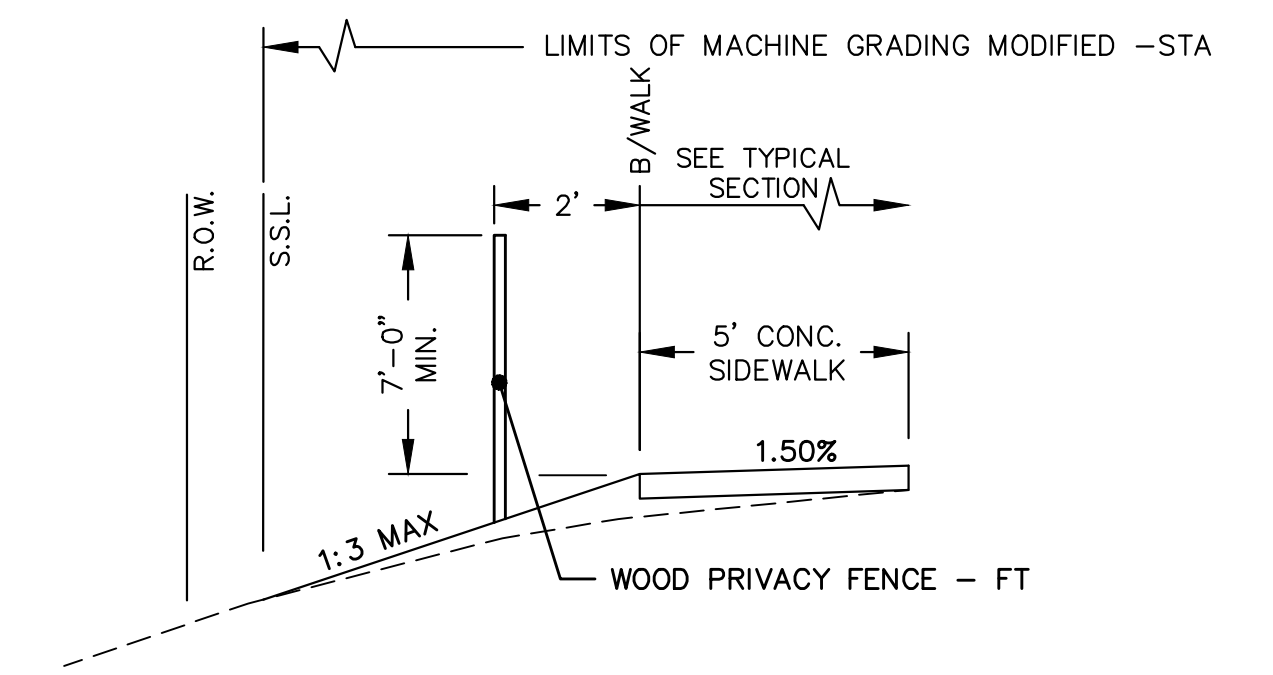
NATURAL BOULDER RETAINING WALL (IN CURB SECTION)
NOT TO SCALE



TREE PROTECTION
NOT TO SCALE



WOOD PICKET FENCE
(TO APPLY STA 32+70 TO 34+49 LT)
NOT TO SCALE



WOOD PRIVACY FENCE
(TO APPLY STA 7+90 TO 8+85 LT)
NOT TO SCALE



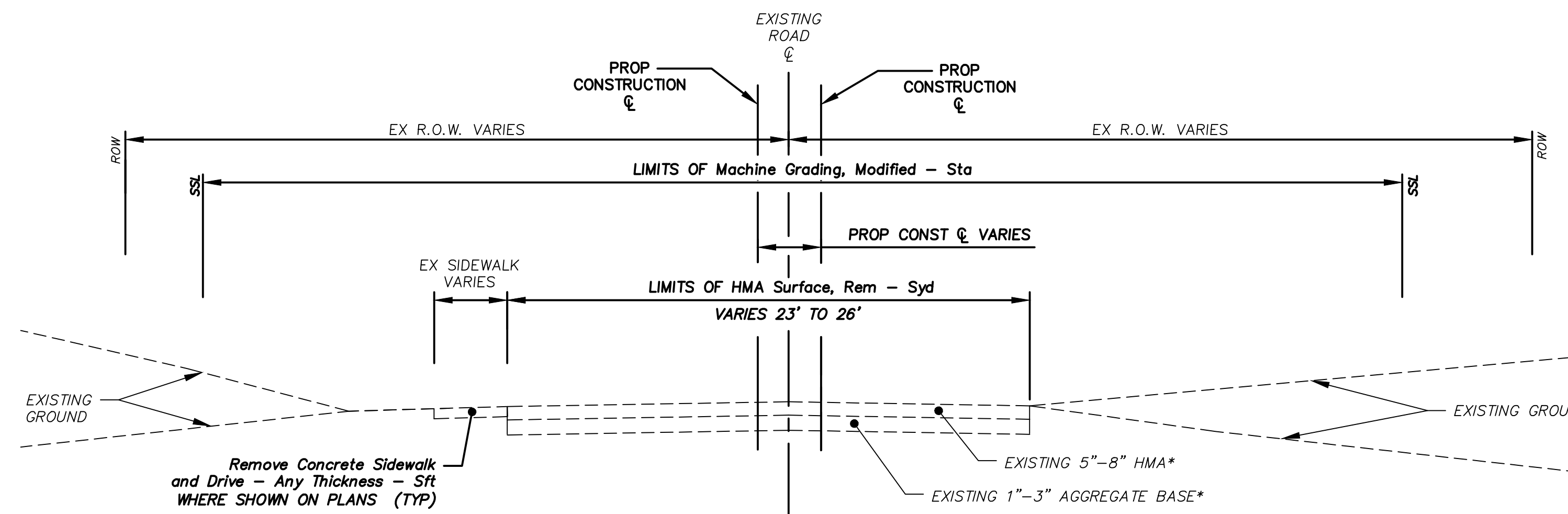
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
1	ISSUED FOR BIDS	APR. 22, 2015	ALP/MIN	CEH
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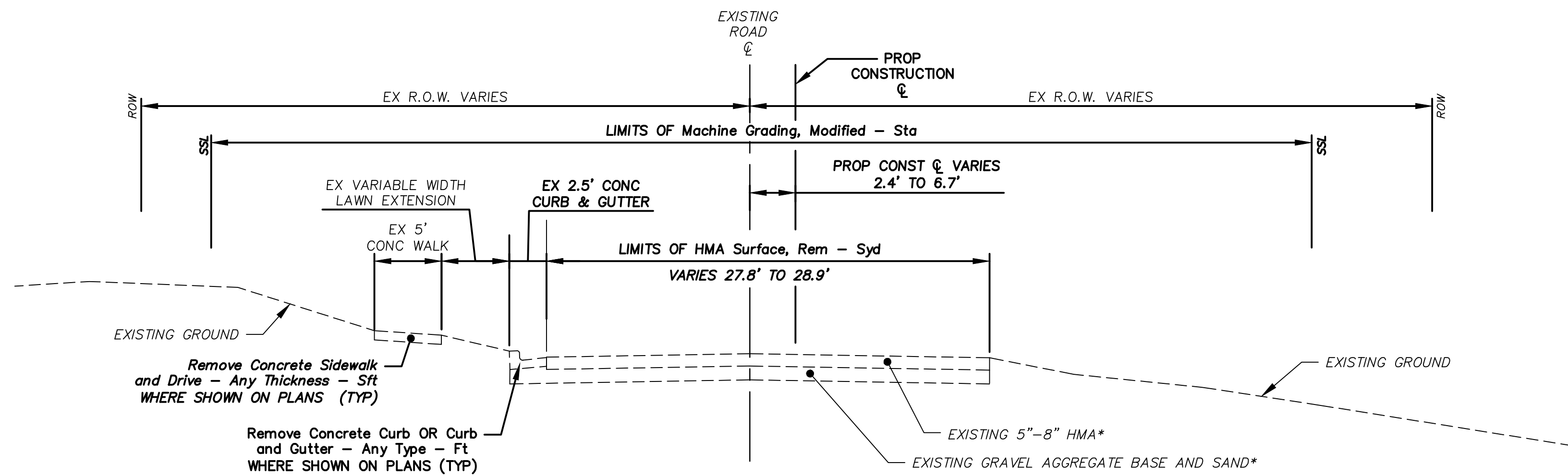


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDES AVENUE IMPROVEMENTS
PROJECT DETAILS
LANDSCAPE AND NATURAL BOULDER WALL DETAILS
COMMUNICATIONS HANDHOLE ASSEMBLY AND LIGHT STANDARD DETAILS

SCALE: NOT TO SCALE
DRAWING No. DET-07
SHEET No.



GEDDES AVENUE
EXISTING TYPICAL SECTION
STA. 7+32 (P.O.B.) TO STA. 39+70
 N.T.S.



GEDDES AVENUE
EXISTING TYPICAL SECTION
STA. 39+70 TO STA. 40+27
 N.T.S.



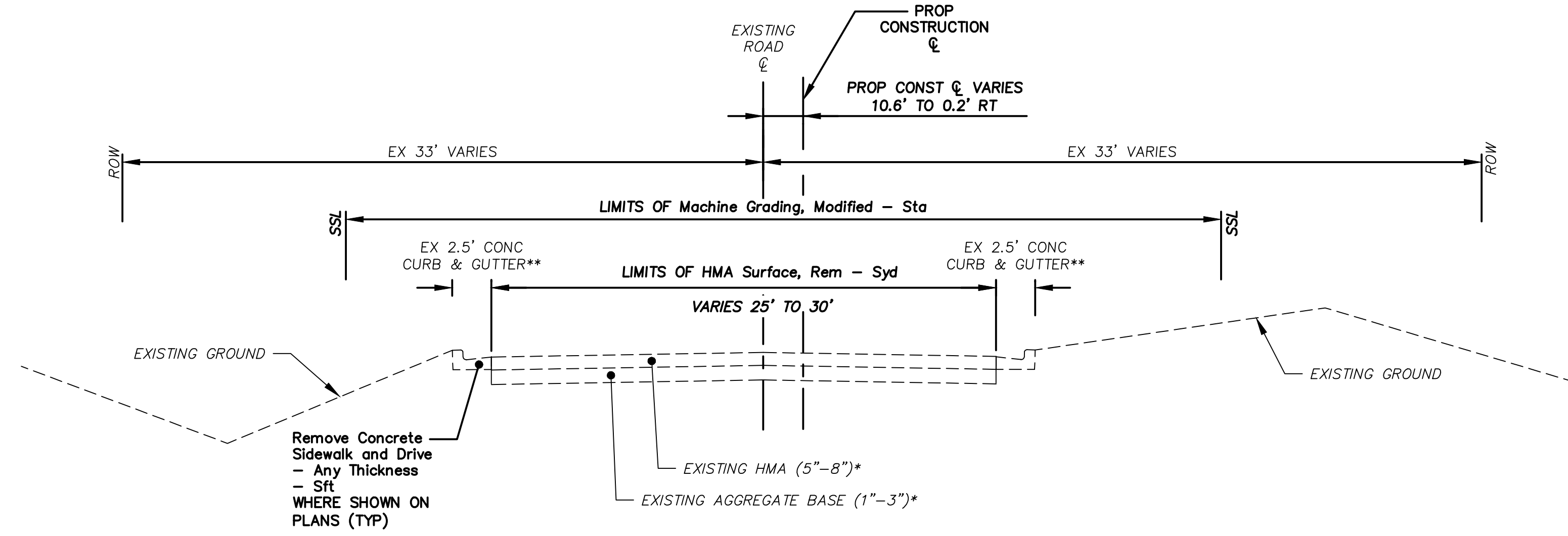
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
	ISSUED FOR BIDS	APR. 22, 2015	ALP/MIN	CEH
	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/MIN	CEH
	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/MIN	CEH
	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/MIN	CEH

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 GEDDES AVENUE IMPROVEMENTS
 GEDDES AVENUE EXISTING TYPICAL SECTIONS
 STA. 7+32 (P.O.B.) TO STA. 40+27

SCALE NOT TO SCALE
 DRAWING No. TYP-01
 SHEET No.



**GEDDES AVENUE
EXISTING TYPICAL SECTION**

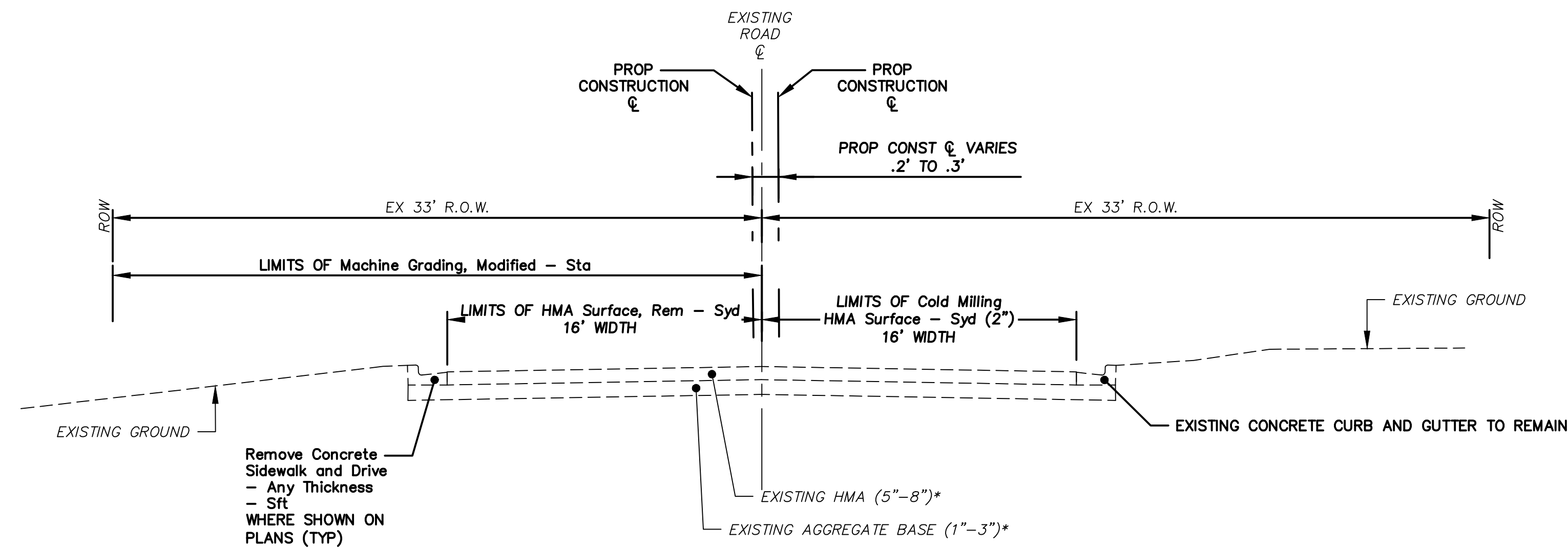
STA. 40+27 TO STA. 47+08 **

N.T.S.

NOTE:

* REFER TO SOIL BORINGS AND PAVEMENT CORES FOR FIELD MEASURED DATA

** EXISTING CURB AND GUTTER PRESENT FROM 47+08 TO 47+32 (NO EX TYPICAL FOR THIS SECTION)



**GEDDES AVENUE
EXISTING TYPICAL SECTION**

STA. 47+32 TO STA. 51+15 (P.O.E.)

N.T.S.

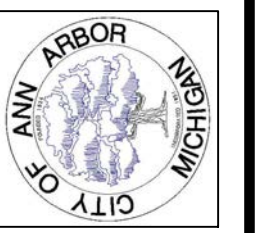
NOTE:

* REFER TO SOIL BORINGS AND PAVEMENT CORES FOR FIELD MEASURED DATA



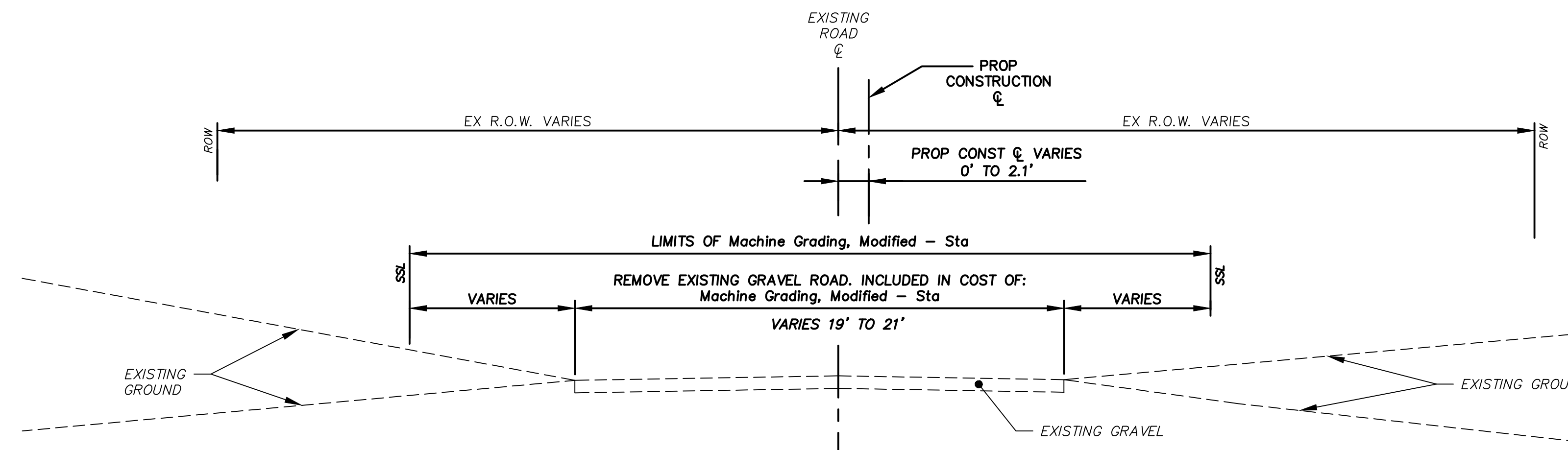
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
	ISSUED FOR BIDS	APR. 22, 2015	ALP/MN	CEH
	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/MN	CEH
	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/MN	CEH
	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/MN	CEH

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
GEDDES AVENUE TYPICAL SECTIONS
STA. 42+43 TO STA. 51+33 (P.O.E.)

SCALE NOT TO SCALE
DRAWING No. TYP-02
SHEET No.

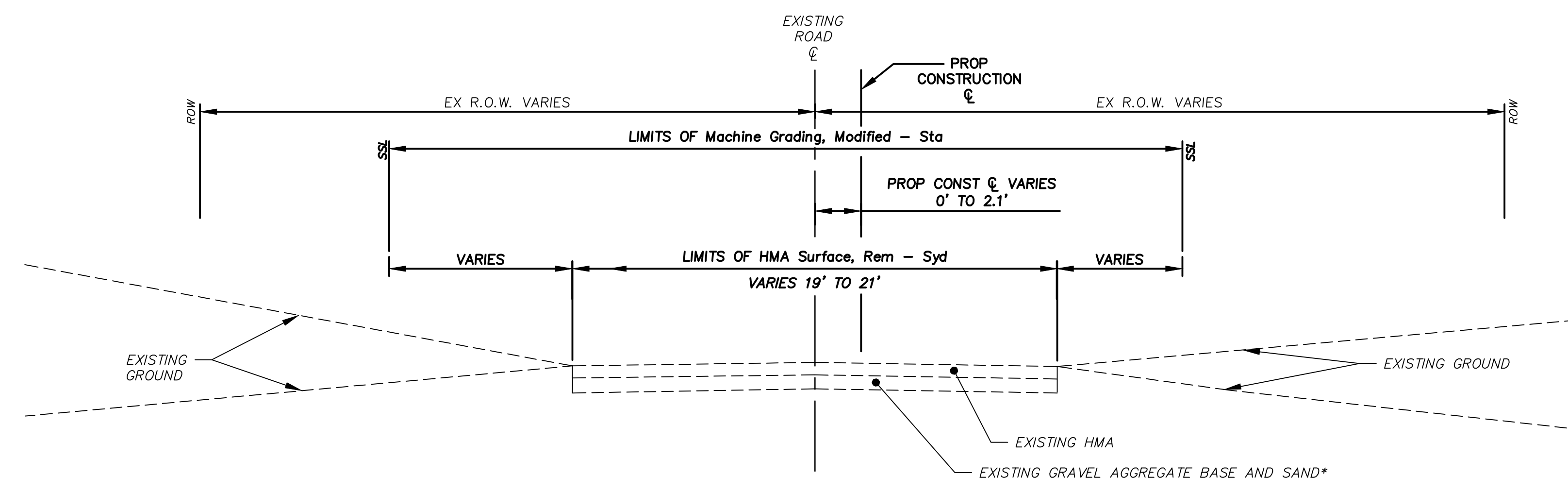


**APPLE WAY & HEATHER WAY
EXISTING GRAVEL TYPICAL SECTION**

**APPLE WAY: STA. 6+57 (P.O.B.) TO STA. 9+93
HEATHER WAY: STA. 0+00 (P.O.B.) TO STA. 1+77**

N.T.S.

NOTE:
* REFER TO SOIL BORINGS AND PAVEMENT CORES FOR FIELD MEASURED DATA



**APPLE WAY & HEATHER WAY
EXISTING HMA TYPICAL SECTION**

APPLE WAY: STA. 9+93 TO STA. 11+00 (P.O.E.)

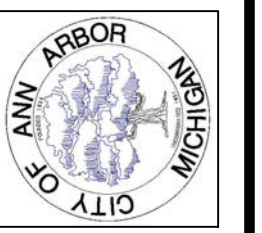
N.T.S.

NOTE:
① HEATHER WAY CONSIDERED SIDESTREET APPROACH. THEREFORE, WILL FOLLOW GEDDES TYPICAL SECTION FOR REMOVALS.



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
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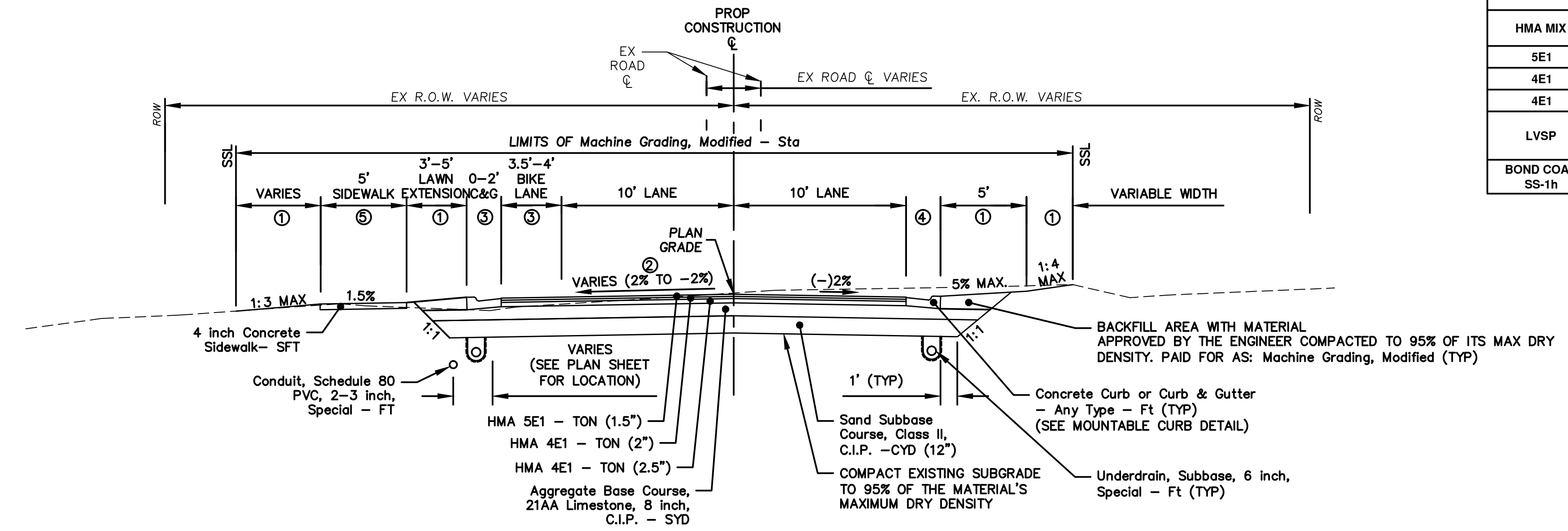
PROJECT MANAGEMENT – PUBLIC SERVICES – CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
GEDDES AVENUE EXISTING TYPICAL SECTIONS
STA. 7+32 (P.O.B.) TO STA. 40+27

SCALE NOT TO SCALE
DRAWING No. TYP-03
SHEET No.



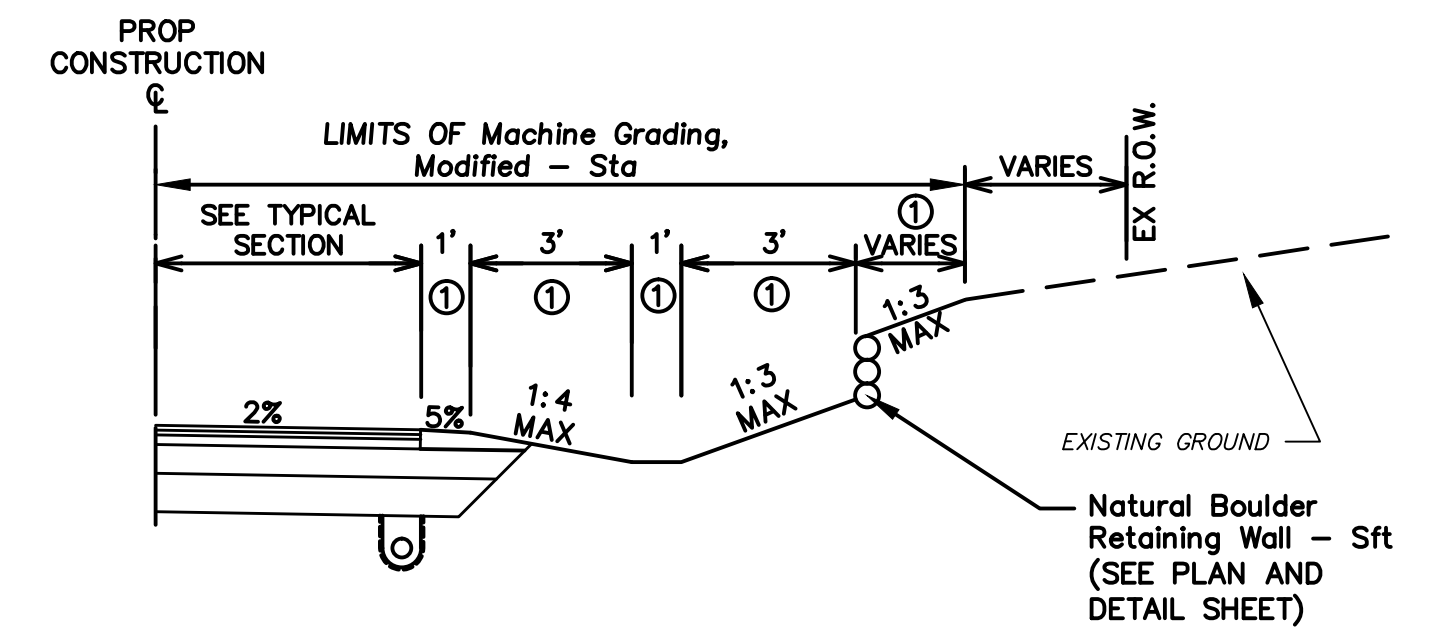
Know what's below.
Call before you dig.

GEDDES AVENUE - HMA APPLICATION ESTIMATE					
HMA MIX	RATE OF APPLICATION	THICKNESS (INCHES)	AWI (MIN.)	BINDER	LOCATION/NOTES
5E1	165 LB/SYD	1.5	260	PG 64-22	TOP COURSE
4E1	220 LB/SYD	2.0		PG 64-22	LEVELING COURSE
4E1	275 LB/SYD	2.5		PG 64-22	LEVELING COURSE
LVSP	165 LB/SYD 220 LB/SYD	1.5 (TOP) 2.0 (LEVELING) 3.5 TOTAL		PG 64-22	DRIVE APPROACHES HMA PATH
BOND COAT SS-1h	0.05 GAL/SYD				INCLUDED IN COST OF HMA ITEMS



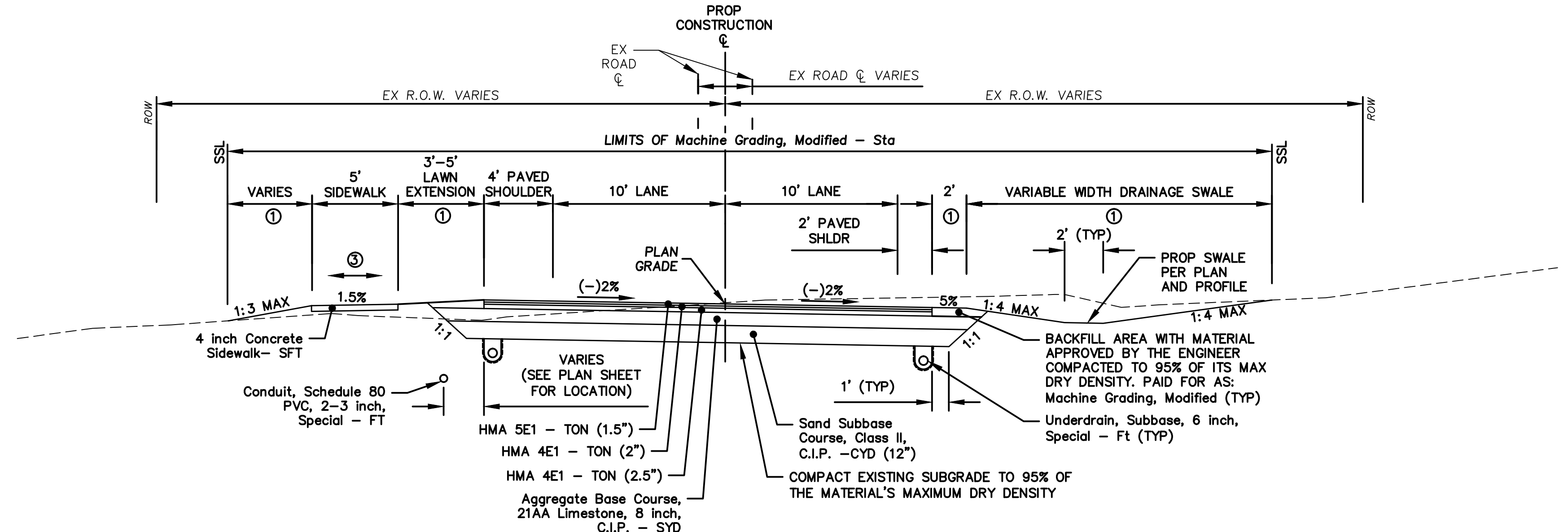
**GEDDES AVENUE
TYPICAL SECTION
STA. 7+32 (P.O.B.) TO STA. 10+00**
N.T.S.

- NOTE:
- ① TURF ESTABLISHMENT
 - ② STA 7+32 TO 9+20: NORMAL CROWN
STA 9+20 TO 9+60: VARIES 2% TO 0%
STA 9+60 TO 10+00: VARIES 0% TO SUPERELEVATION (-2%)
 - ③ 4' PAVED SHOULDER INSTEAD OF 3.5' BIKE LANE AND MOUNTABLE CURB FROM STA 9+52 TO 10+00
 - ④ 2' PAVED SHOULDER INSTEAD OF MOUNTABLE CURB FROM STA 9+63 TO 10+00
 - ⑤ CROSS SLOPE OF SIDEWALK TO BE 2.0% THRU DRIVEWAYS



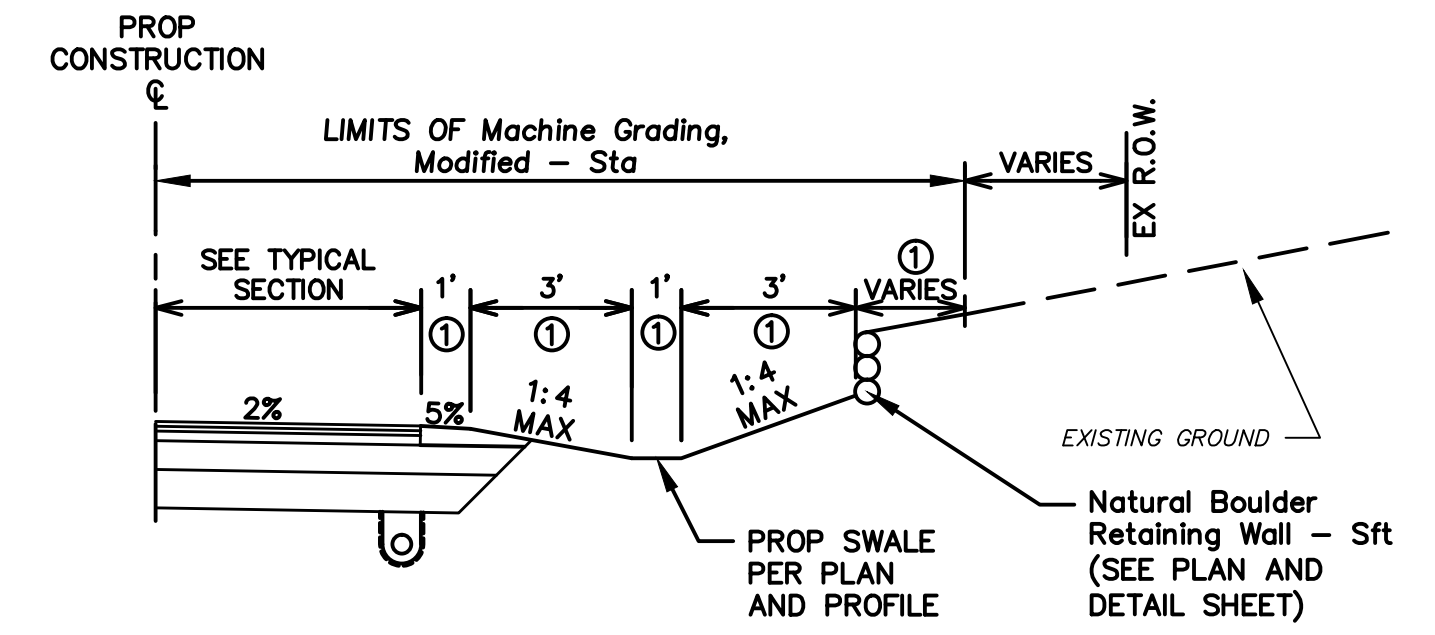
**INFILTRATION DITCH/BOULDER RETAINING WALL
GRADING DETAIL
STA 15+50 TO STA 16+30**
N.T.S.

- NOTE:
- ① TURF ESTABLISHMENT



**GEDDES AVENUE
TYPICAL SECTION
STA. 10+00 TO STA. 23+75**
N.T.S.

- NOTE:
- ① TURF ESTABLISHMENT
 - ② INFILTRATION TRENCH TO BE INSTALLED UNDER PROPOSED ROAD WAY FROM STA 10+40 TO 14+10. SEE INFILTRATION PLAN AND PROFILE SHEET FOR DETAILS.
 - ③ SEE ALIGNMENT PLAN FOR DIRECTION OF SLOPE.
 - ④ CROSS SLOPE OF SIDEWALK TO BE 2.0% THRU DRIVEWAYS



**INFILTRATION DITCH/BOULDER RETAINING WALL
GRADING DETAIL
STA 17+50 TO STA 23+00**
N.T.S.

- NOTE:
- ① TURF ESTABLISHMENT

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
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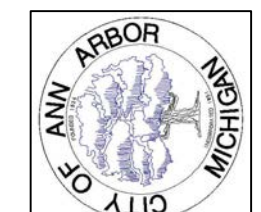
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
GEDDES AVENUE TYPICAL SECTIONS
P.O.B. TO 23+75

SCALE NOT TO SCALE
DRAWING No. TYP-04
SHEET No.



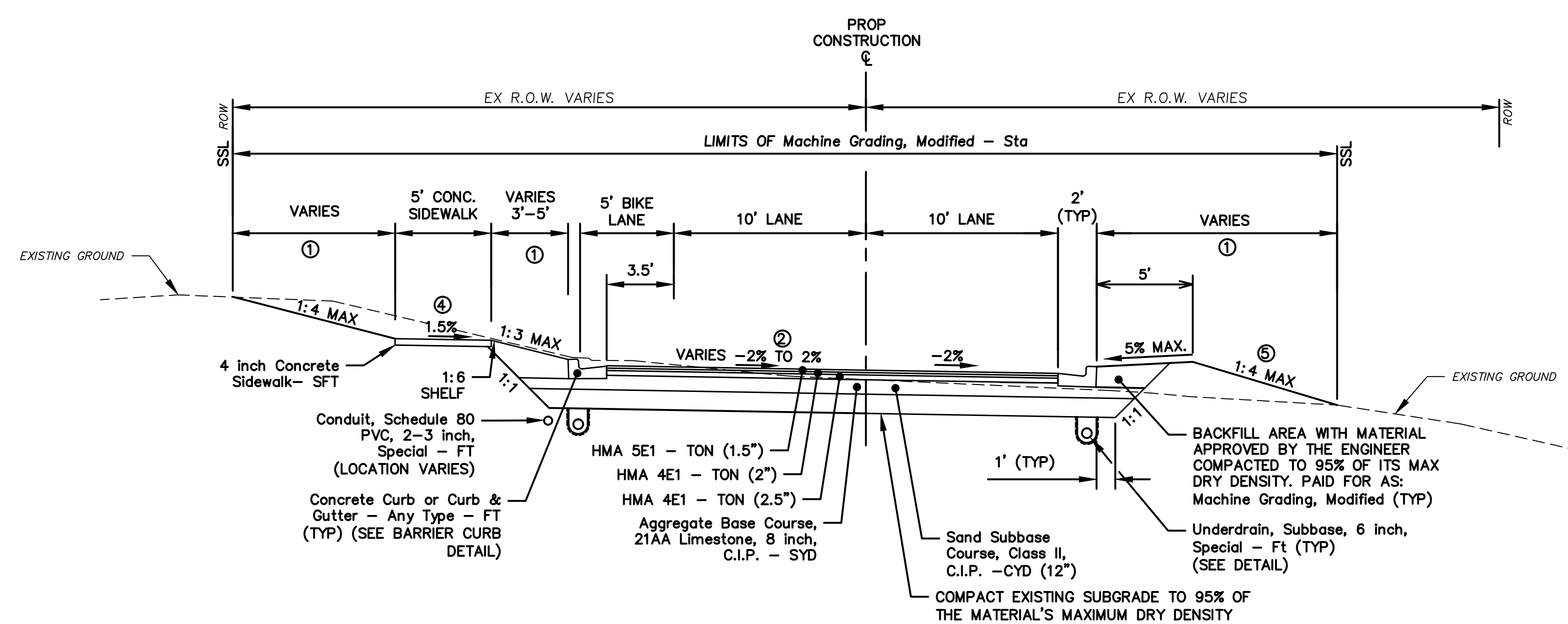
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APR. 22, 2015	ISSUED FOR BIDS	APR. 22, 2015	ALP/MIN	CEH
MAR. 26, 2015	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/MIN	CEH
MAR. 13, 2015	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/MIN	CEH
JAN. 29, 2015	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/MIN	CEH

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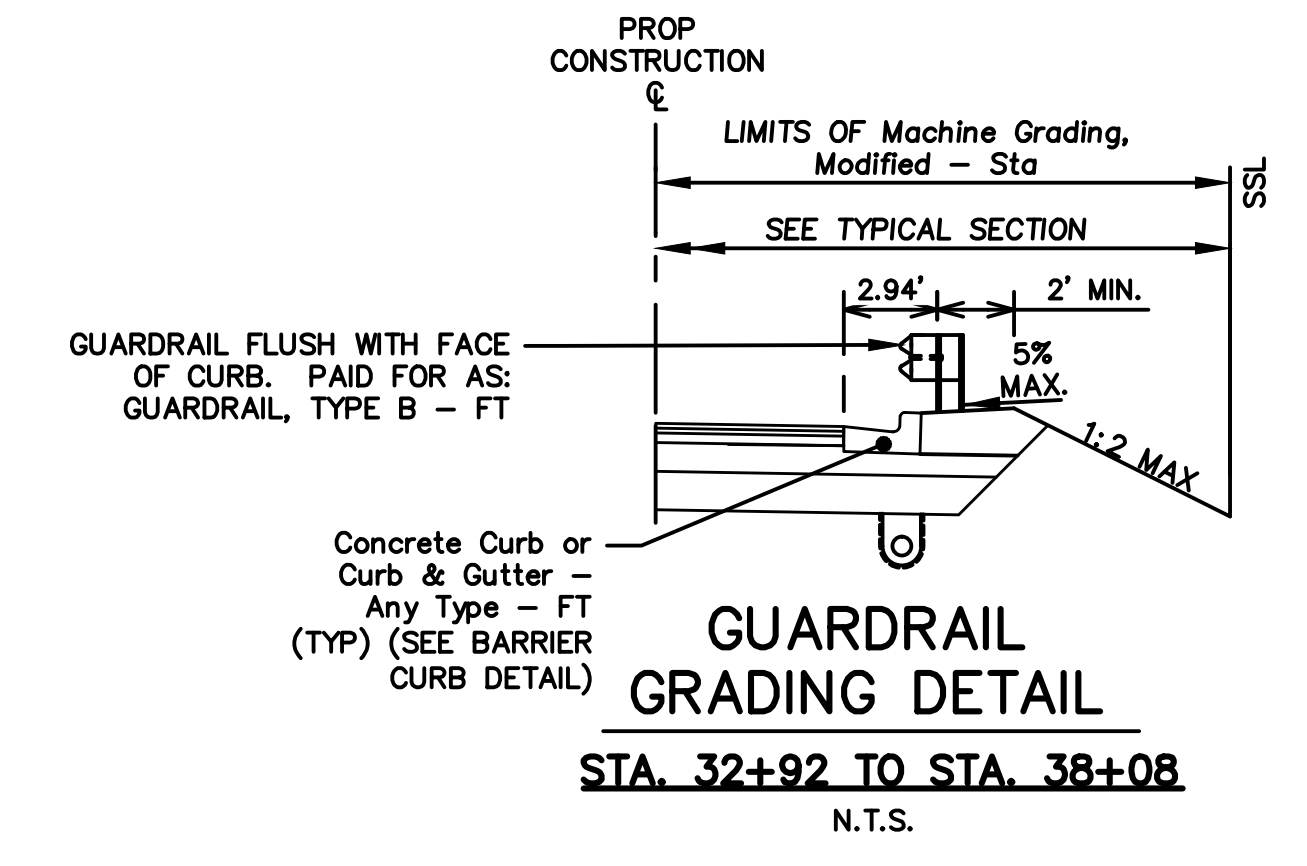
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
GEDDES AVENUE TYPICAL SECTIONS
STA. 23+75 TO STA. 47+36

SCALE NOT TO SCALE
DRAWING No. TYP-05
SHEET No.

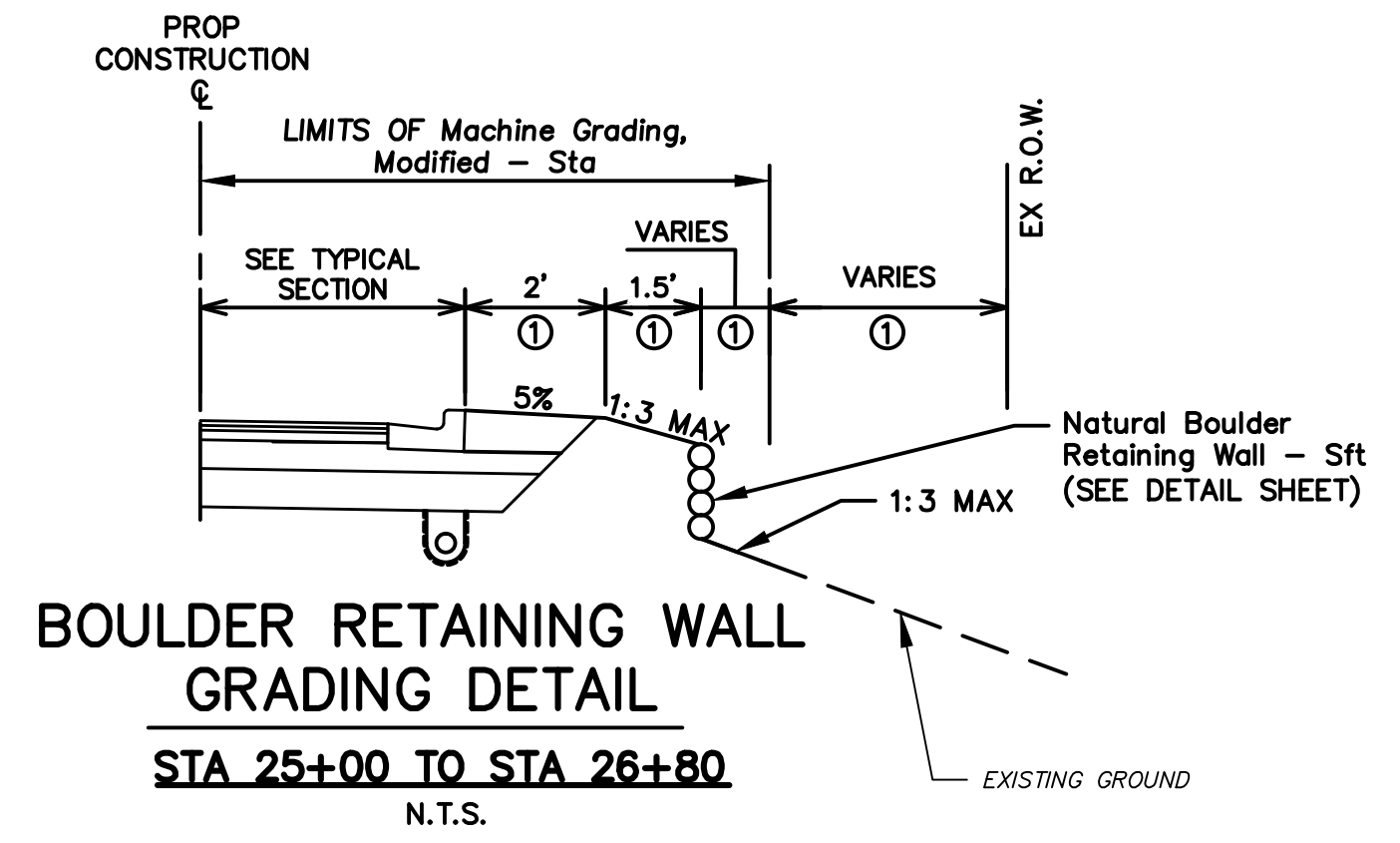


**GEDDES AVENUE
TYPICAL SECTION**
STA. 23+75 TO STA. 39+60 ①

- N.T.S.
- NOTES:
 ① TURF ESTABLISHMENT
 ② STA 23+75 TO 38+60: SUPERELEVATION (-2%)
 STA 38+60 TO 39+00: VARIES -2% TO 0%
 STA 39+00 TO 39+60: VARIES 0% TO 2%
 ③ INFILTRATION BEDS TO BE INSTALLED UNDER PROPOSED ROAD WAY FROM:
 - STA 26+60 TO 29+00
 - STA 31+25 TO 32+50
 SEE INFILTRATION PLAN AND PROFILE SHEET FOR DETAILS.
 ④ SEE ALIGNMENT PLAN. CROSS SLOPE OF SIDEWALK TO BE 2.0% THRU DRIVEWAYS.
 ⑤ 1:3 MAX. GRADING TO APPLY FROM STA 29+75 TO 30+75

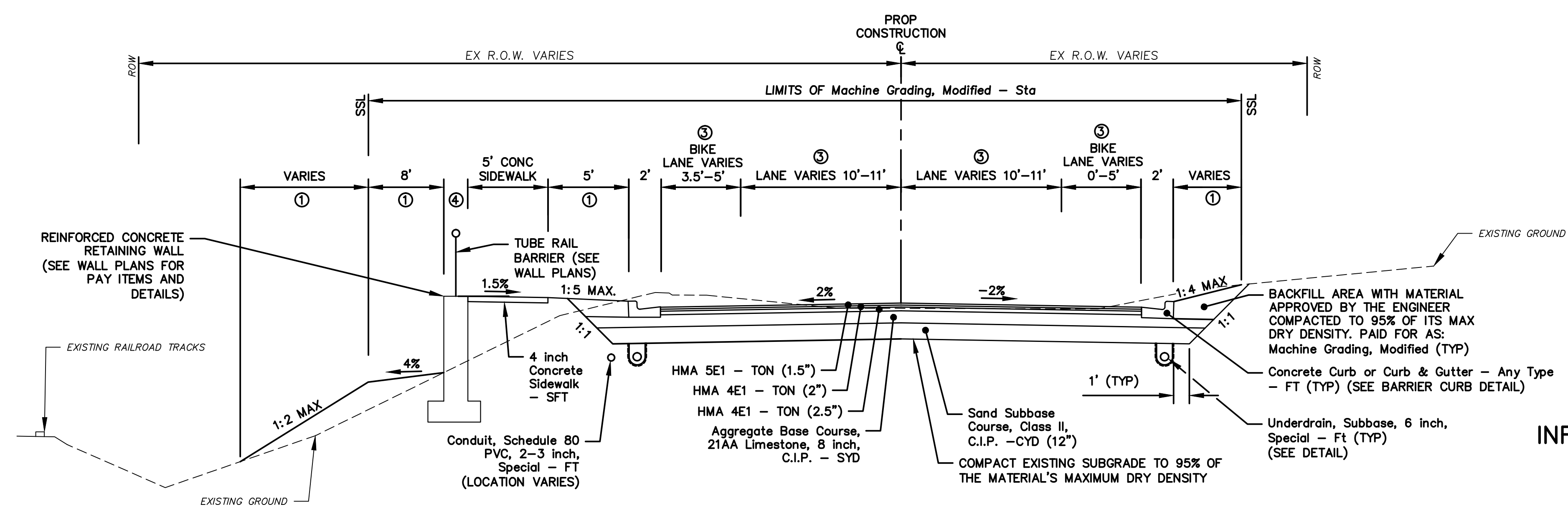


**GUARDRAIL
GRADING DETAIL**
STA. 32+92 TO STA. 38+08
N.T.S.



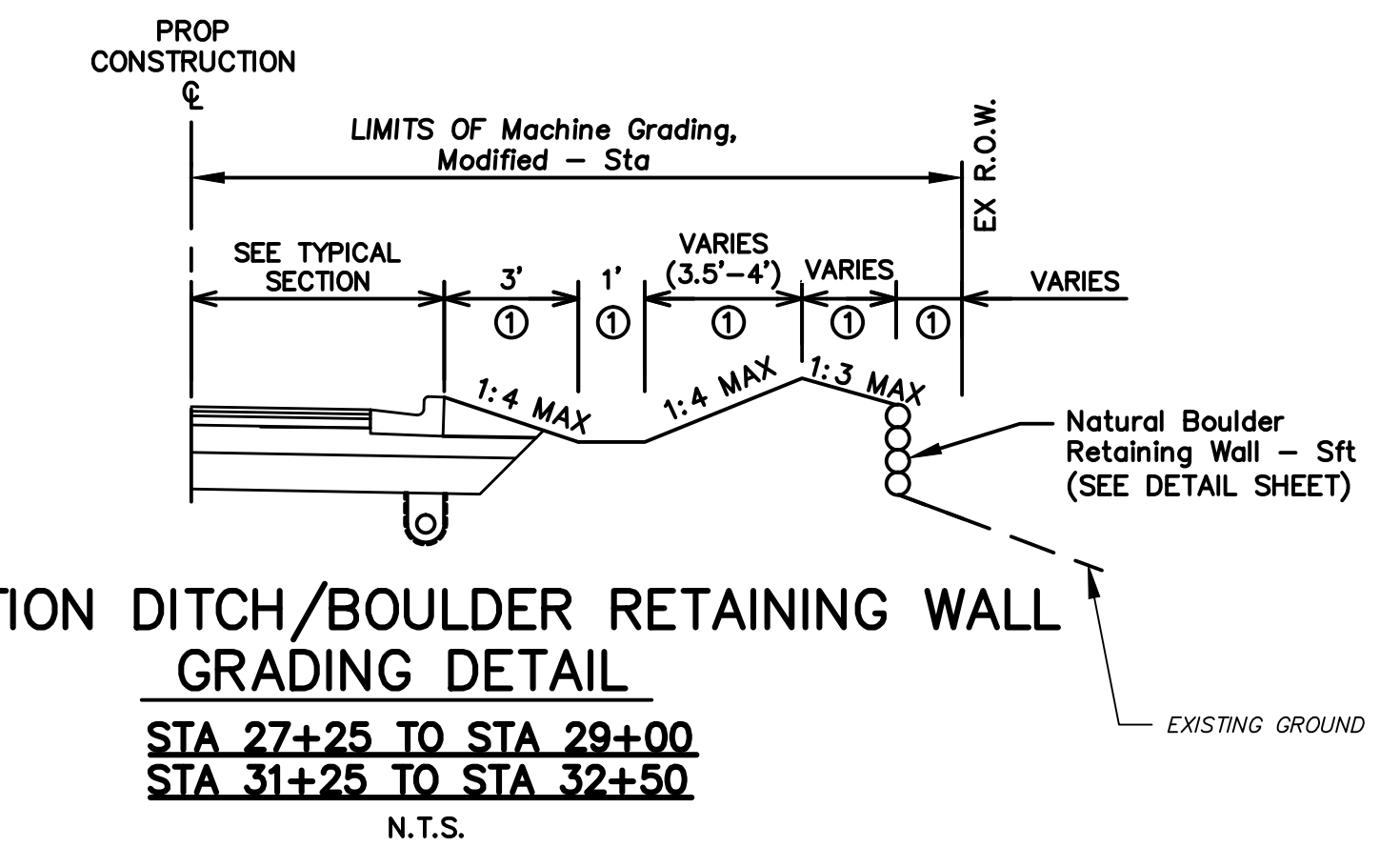
**BOULDER RETAINING WALL
GRADING DETAIL**
STA. 25+00 TO STA. 26+80
N.T.S.

- NOTES:
 ① TURF ESTABLISHMENT



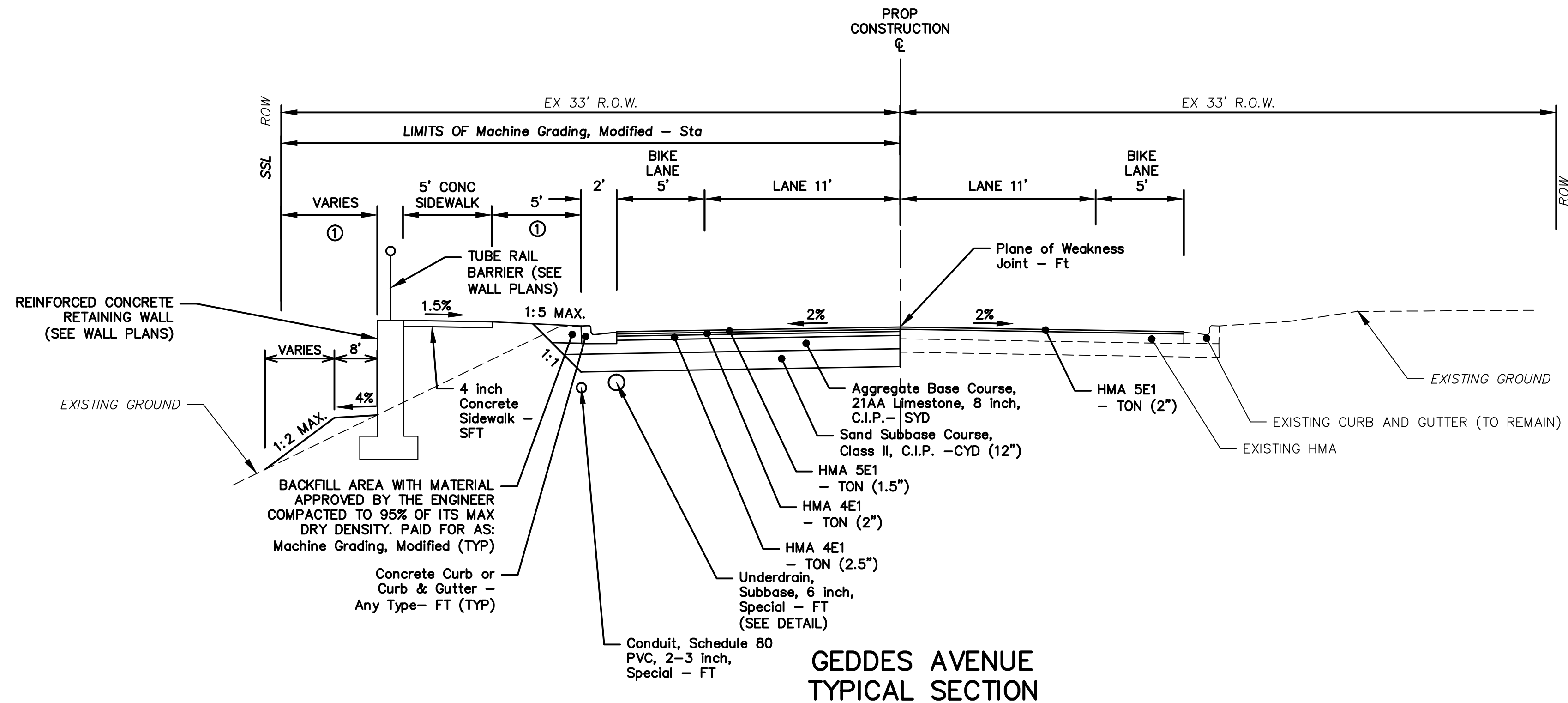
**GEDDES AVENUE
TYPICAL SECTION**
STA. 39+60 TO STA. 47+32 ②

- N.T.S.
- NOTES:
 ① TURF ESTABLISHMENT
 ② INFILTRATION BEDS TO BE INSTALLED UNDER PROPOSED ROAD WAY FROM:
 - STA 40+50 TO 41+50
 - STA 42+00 TO 43+25
 SEE INFILTRATION PLAN AND PROFILE SHEET FOR DETAILS.
 ③ WIDENING FROM STA 39+43 TO STA 42+72
 ④ REINFORCED CONCRETE RETAINING WALL APPLIES TO STA 42+07 TO STA 47+32



**INFILTRATION DITCH/BOULDER RETAINING WALL
GRADING DETAIL**
STA. 27+25 TO STA. 29+00
STA. 31+25 TO STA. 32+50
N.T.S.

- NOTES:
 ① TURF ESTABLISHMENT



**GEDDES AVENUE
TYPICAL SECTION**
STA. 47+32 TO STA. 51+15 (P.O.E.)
 N.T.S.

NOTES:
 ① TURF ESTABLISHMENT



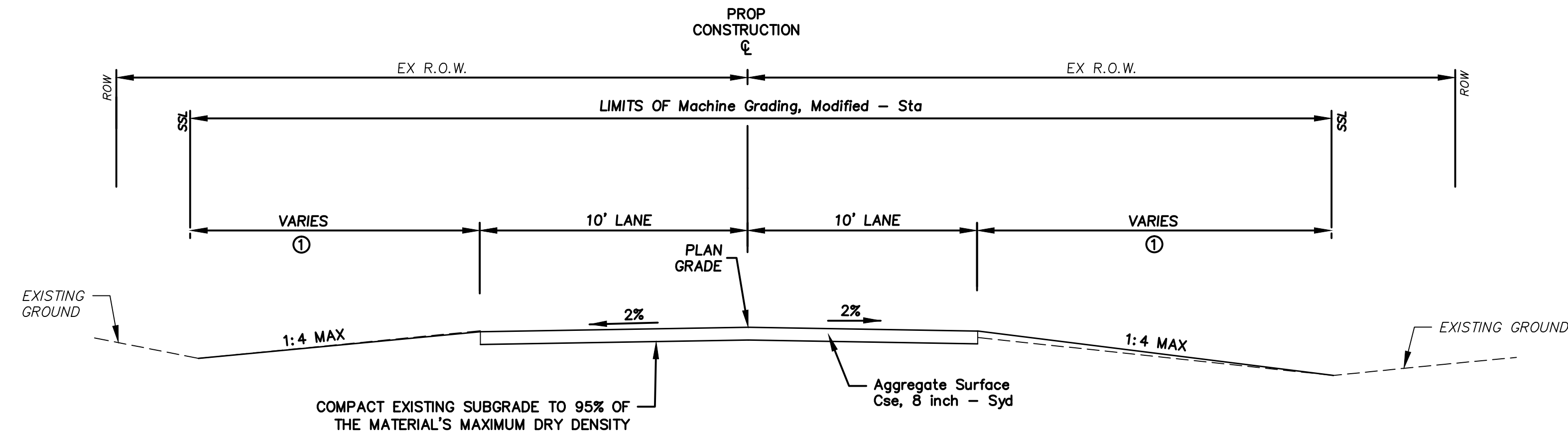
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	ISSUED FOR BIDS	APR. 22, 2015	ALP/MN	CEH
	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/MN	CEH
	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/MN	CEH
	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/MN	CEH

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PROJECT MANAGEMENT – PUBLIC SERVICES – CITY OF ANN ARBOR
 GEDDES AVENUE IMPROVEMENTS
 GEDDES AVENUE TYPICAL SECTIONS
 STA. 23+75 TO STA. 47+36

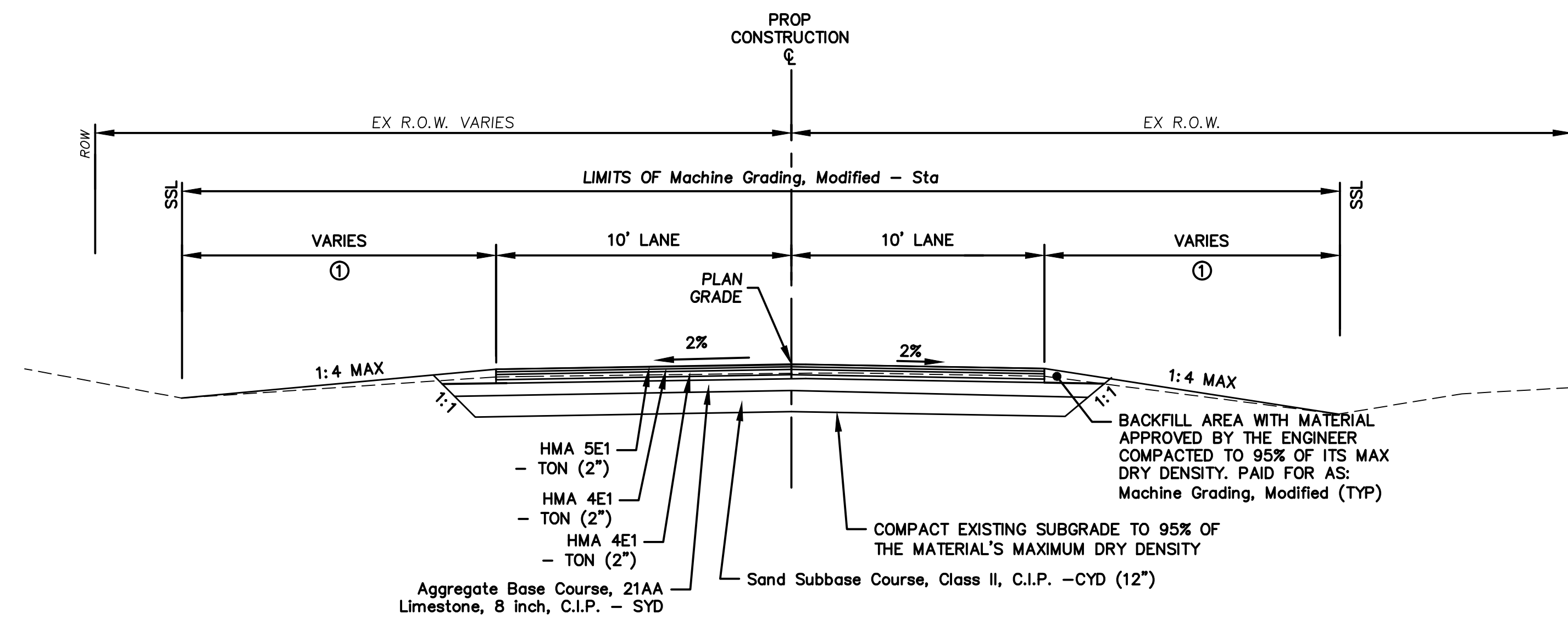
SCALE NOT TO SCALE
 DRAWING No. TYP-06
 SHEET No.



**APPLE WAY PROPOSED AGGREGATE
TYPICAL SECTION**

APPLE WAY: STA. 6+57 (P.O.B.) TO STA. 9+93
N.T.S.

NOTE:
① TURF ESTABLISHMENT



**APPLE WAY PROPOSED HMA
TYPICAL SECTION**

APPLE WAY: STA. 9+93 TO STA. 11+00
N.T.S.

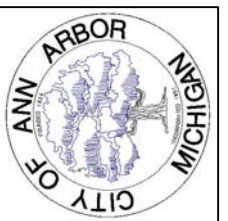
NOTE:
① TURF ESTABLISHMENT



Know what's below.
Call before you dig.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
	ISSUED FOR BIDS	APR. 22, 2015	ALP/MN	CEH
	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/MN	CEH
	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/MN	CEH
	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/MN	CEH

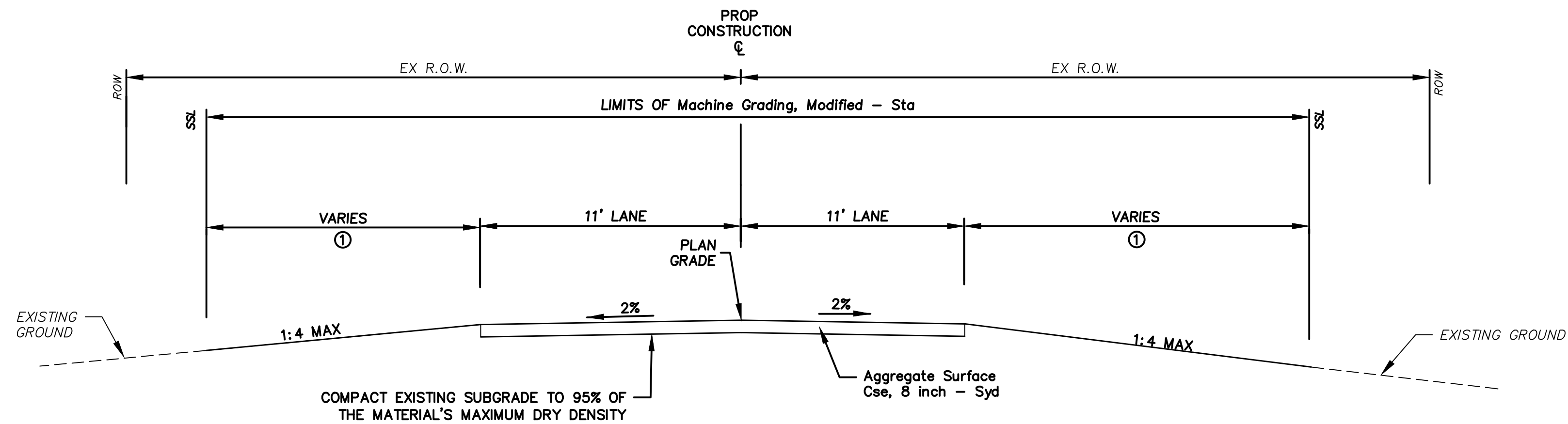
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
APPLE WAY PROPOSED TYPICAL SECTIONS

SCALE NOT TO SCALE
DRAWING No. TYP-07

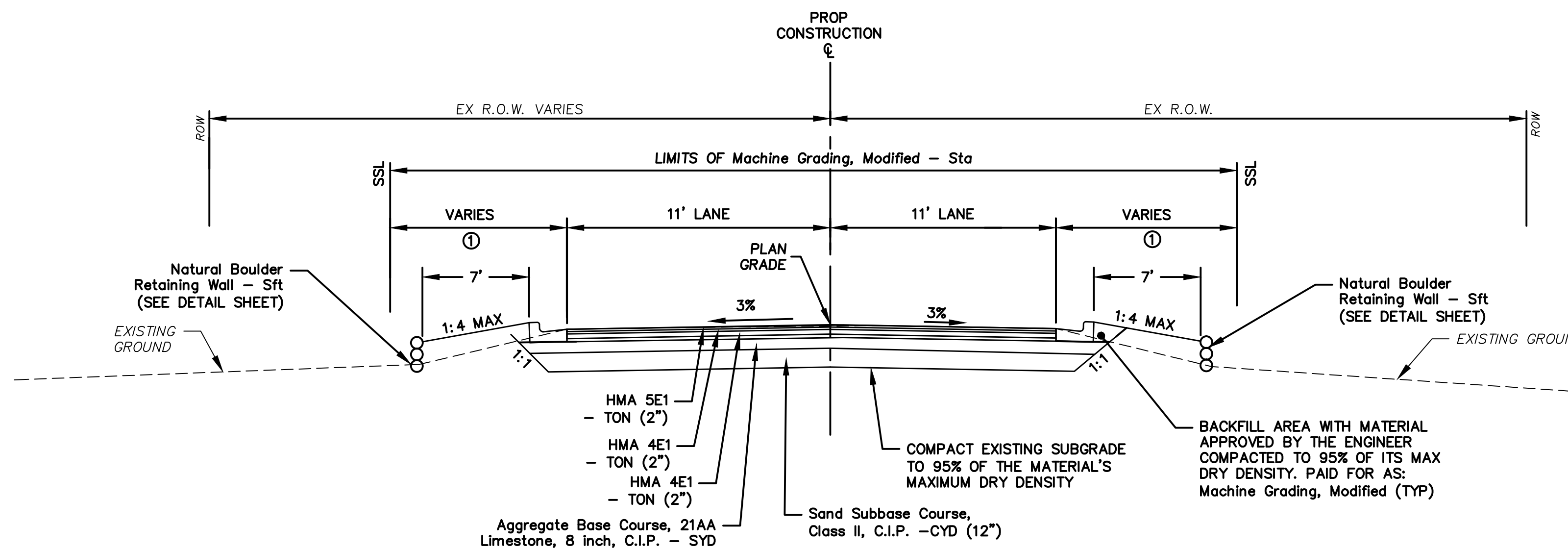
SHEET No.



**HEATHER WAY PROPOSED AGGREGATE
TYPICAL SECTION**

APPLE WAY: STA. 0+00 (P.O.B.) TO STA. 1+77
N.T.S.

NOTE:
① TURF ESTABLISHMENT



**HEATHER WAY PROPOSED HMA
TYPICAL SECTION**

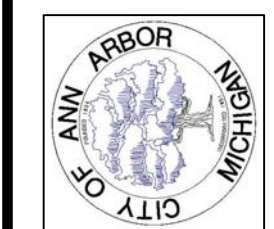
HEATHER WAY: STA. 1+77 TO STA. 2+38 (P.O.E.)
N.T.S.

NOTE:
① TURF ESTABLISHMENT



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
	ISSUED FOR BIDS	APR. 22, 2015	ALP/MN	CEH
	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/MN	CEH
	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/MN	CEH
	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/MN	CEH

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
HEATHER WAY PROPOSED TYPICAL SECTIONS

SCALE NOT TO SCALE
DRAWING No. TYP-08
SHEET No.

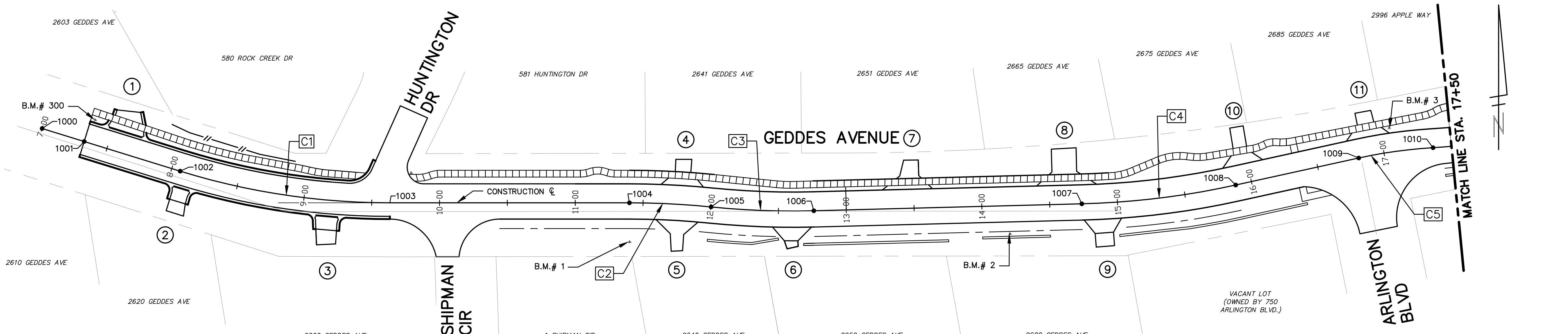


REV.	DESCRIPTION	DATE	DRAWN	CHECKED
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FINAL REVIEW SUBMITTAL	PRELIMINARY PLAN SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH
		MAR. 13, 2015	ALP/ANN	CEH
		JAN. 29, 2015	ALP/ANN	CEH

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
GEDDES AVENUE CONSTRUCTION & ALIGNMENT PLAN
STA. 7+32 (P.O.B.) TO STA. 17+50
SCALE PLAN: 1"=40'
DRAWING No. ALIGN-01
SHEET No.



BENCH MARK INFORMATION		
B.M.#	DESCRIPTION	ELEV.
1	STEAMER VALVE ON HYDRANT ON THE S. SIDE OF GEDDES, ELY OF SHIPMAN CIRCLE	835.203
2	BT SPIKE IN N. SIDE 18" WALNUT ON THE S. SIDE OF GEDDES AT HOUSE #2670	835.574
3	BOAT SPIKE IN S. SIDE POWER POLE ON THE N. SIDE OF GEDDES, 2ND POLE WLY OF APPLE WAY	837.997

DRIVEWAY 1		
PT.	ELEV.	COORDINATE
A	844.700	E: 13299987.5704 N: 282518.4190
B	844.200	E: 13299989.2915 N: 282522.8859
C	844.100	E: 13299993.0142 N: 282526.6151
D	843.850	E: 13299998.5835 N: 282513.0167
E	843.650	E: 13300000.4941 N: 282517.1197
F	843.550	E: 13300002.9563 N: 282521.4754
G	843.400	E: 13300003.3490 N: 282528.0658
H	842.970	E: 13300009.5966 N: 282507.6145
I	843.170	E: 13300011.8556 N: 282511.1783
J	843.240	E: 13300012.0711 N: 282516.7543

DRIVEWAY 2		
PT.	ELEV.	COORDINATE
A	840.250	E: 13300037.7514 N: 282427.0067
B	841.280	E: 13300033.8143 N: 282454.0763
C	840.550	E: 13300032.6637 N: 282465.7294
D	841.390	E: 13300028.3381 N: 282456.7036
E	842.150	E: 13300024.4623 N: 282448.6164
F	840.950	E: 13300028.1406 N: 282467.9269
G	841.650	E: 13300022.9946 N: 282459.2673

DRIVEWAY 3		
PT.	ELEV.	COORDINATE
A	835.440	E: 13300142.9765 N: 282427.0067
B	835.080	E: 13300140.8457 N: 282417.1952
C	835.650	E: 13300135.8118 N: 282428.7179
D	836.280	E: 13300133.4371 N: 282419.0712
E	836.940	E: 13300131.6869 N: 282408.5112
F	835.930	E: 13300127.8916 N: 282430.7322
G	836.510	E: 13300126.0143 N: 282420.8864

DRIVEWAY 4		
PT.	ELEV.	COORDINATE
A	833.230	E: 13300405.2063 N: 282382.3152
B	834.150	E: 13300393.2492 N: 282374.8757
C	833.260	E: 13300390.5563 N: 282385.7269
D	834.090	E: 13300388.4083 N: 282375.9383
E	834.670	E: 13300386.4240 N: 282363.6640
F	833.330	E: 13300374.7305 N: 282388.9724
G	834.010	E: 13300383.5674 N: 282377.0008

DRIVEWAY 5		
PT.	ELEV.	COORDINATE
A	833.840	E: 13300382.4494 N: 282413.9707
B	833.310	E: 13300388.6271 N: 282417.8058
C	833.190	E: 13300394.3258 N: 282421.7427
D	833.770	E: 13300397.7636 N: 282410.7617
E	833.290	E: 13300398.8485 N: 282415.6425
F	833.190	E: 13300399.9335 N: 282420.5234
G	832.270	E: 13300401.9681 N: 282429.6761
H	833.750	E: 13300413.0050 N: 282407.2529
I	833.270	E: 13300409.6138 N: 282413.1484
J	833.180	E: 13300405.5233 N: 282419.2539

DRIVEWAY 6		
PT.	ELEV.	COORDINATE
A	833.460	E: 13300487.1587 N: 282365.7215
B	834.420	E: 13300475.7048 N: 282357.2478
C	833.390	E: 13300472.3298 N: 282367.8878
D	834.360	E: 13300470.7664 N: 282358.0311
E	834.840	E: 13300471.0913 N: 282352.8971
F	833.330	E: 13300458.7936 N: 282370.1908
G	834.270	E: 13300465.8279 N: 282358.8144

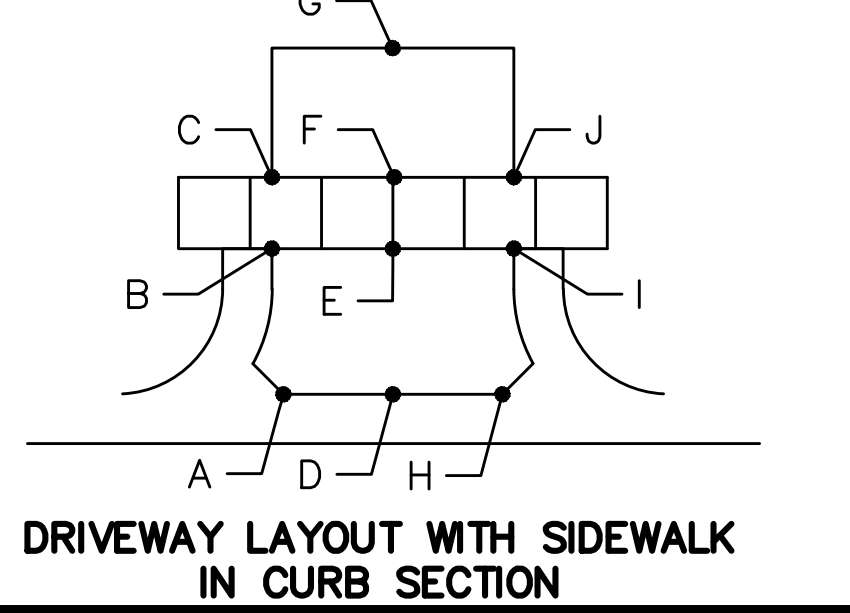
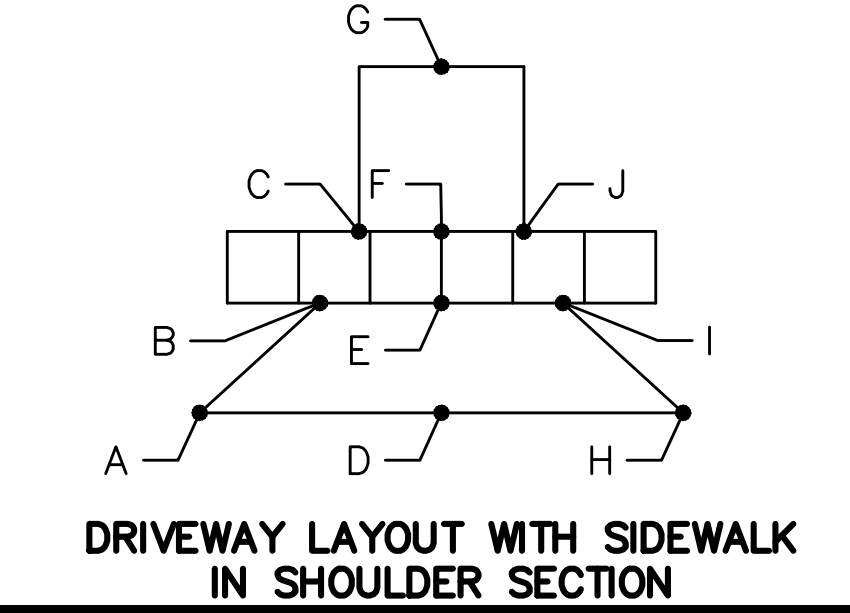
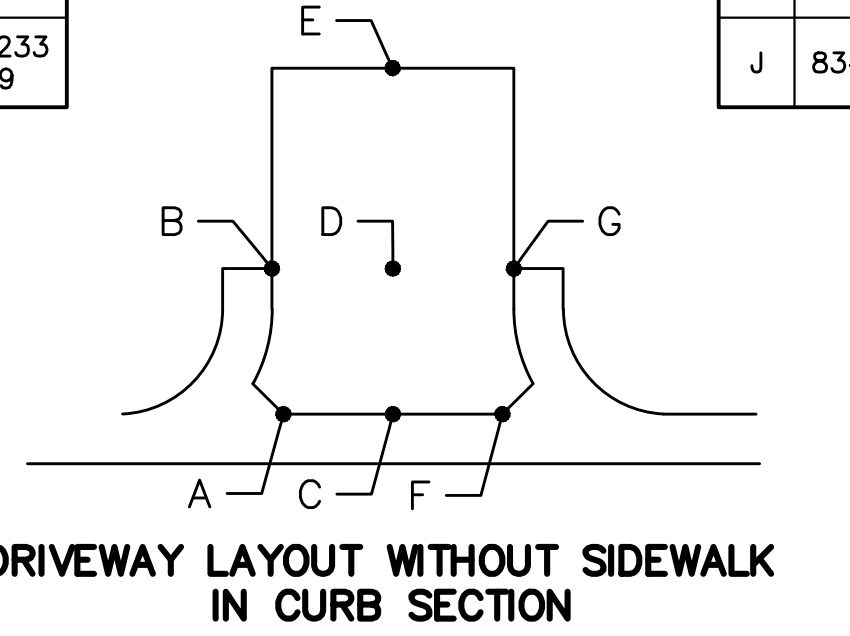
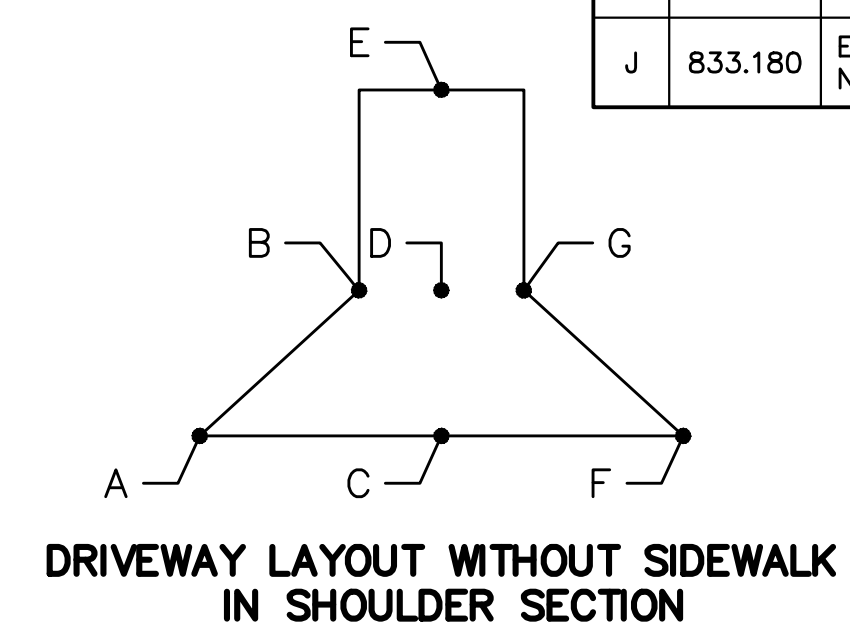
DRIVEWAY 7		
PT.	ELEV.	COORDINATE
A	834.250	E: 13300542.9751 N: 282384.6722
B	834.010	E: 13300547.2569 N: 282387.1402
C	833.950	E: 13300554.3932 N: 282391.2535
D	834.350	E: 13300562.9003 N: 282382.0787
E	834.070	E: 13300563.2875 N: 282385.0536
F	833.980	E: 13300563.9328 N: 282390.0118
G	832.770	E: 13300567.2500 N: 282403.2275
H	834.440	E: 13300579.7598 N: 282379.8843
I	834.130	E: 13300577.1721 N: 282383.2464
J	834.000	E: 13300572.8593 N: 282388.8499

DRIVEWAY 8		
PT.	ELEV.	COORDINATE
A	834.830	E: 13300655.8245 N: 282369.9837
B	834.640	E: 13300659.6375 N: 282372.5127
C	834.570	E: 13300665.9927 N: 282376.7276
D	834.970	E: 13300676.2965 N: 282367.3190
E	834.720	E: 13300676.6837 N: 282370.2939
F	834.620	E: 13300677.3291 N: 282375.2521
G	833.120	E: 13300679.8045 N: 282394.2705
H	835.200	E: 13300699.8237 N: 282364.3690
I	834.870	E: 13300695.9148 N: 282367.8344
J	834.690	E: 13300689.5142 N: 282373.6661

DRIVEWAY 9		
PT.	ELEV.	COORDINATE
A	834.820	E: 13300714.0222 N: 282336.8850
B	835.720	E: 13300706.5272 N: 282327.5676
C	834.700	E: 13300700.8295 N: 282338.1124
D	835.680	E: 13300699.7887 N: 282328.1022
E	836.670	E: 13300698.9978 N: 282318.1335
F	834.580	E: 13300686.5402 N: 282339.7680
G	835.650	E: 13300693.0503 N: 282328.6368

DRIVEWAY 10		
PT.	ELEV.	COORDINATE
A	836.050	E: 13300793.2245 N: 282361.5545
B	835.380	E: 13300800.8762 N: 282369.8394
C	835.300	E: 13300803.1378 N: 282374.8673
D	836.190	E: 13300809.0929 N: 282362.4891
E	835.420	E: 13300808.6358 N: 282369.9339
F	835.320	E: 13300808.4884 N: 282374.9325
G	833.830	E: 13300808.0376 N: 282390.2222
H	836.320	E: 13300823.4350 N: 282363.4453
I	835.470	E: 13300816.2755 N: 282370.0270
J	835.340	E: 13300813.2632 N: 282374.9907

DRIVEWAY 11		
PT.	ELEV.	COORDINATE
A	836.940	E: 13300886.6094 N: 282367.3996
B	836.510	E: 13300891.4779 N: 282372.5851
C	836.480	E: 13300896.3423 N: 282377.7660
D	837.180	E: 13300902.4734 N: 282368.0915
E	836.640	E: 13300902.3043 N: 282372.9896
F	836.550	E: 13300902.1319 N: 282377.9829
G	835.560	E: 13300901.8258 N: 282366.8488
H	837.480	E: 13300918.7052 N: 282368.2897
I	836.800	E: 13300913.5295 N: 282373.4091
J	836.610	E: 13300908.6550 N: 282378.2304



CURVE ALIGNMENT - GEDDES AVE					
CURVE #	RADIUS	LENGTH	CHORD DIRECTION	START POINT	END POINT
C1	522.96'	156.91'	S72° 30' 02.51"E	E: 13300033.8351 N: 282478.4998	E: 13300182.9244 N: 282431.4942
C2	600.00'	60.27'	S78° 13' 07.44"E	E: 13300357.3909 N: 282404.1620	E: 13300416.3649 N: 282391.8618
C3	600.00'	75.85'	S78° 57' 45.30"E	E: 13300416.3649 N: 282391.8618	E: 13300490.7599 N: 282377.3505
C4	600.00'	114.45'	S88° 02' 55.45"E	E: 13300686.6747 N: 282351.8501	E: 13300800.8873 N: 282347.9590
C5	350.00'	55.37'	S88° 58' 52.51"E	E: 13300893.5850 N: 282353.6504	E: 13300948.8896 N: 282352.6670

ALIGNMENT POINTS	
PT.	COORDINATE
1000	E: 13299938.1967 N: 282525.3422
1001	E: 13299967.3334 N: 282511.0714
1002	E: 13300033.8351 N: 282478.4998
1003	E: 13300182.9244 N: 282431.4942
1004	E: 13300357.3909 N: 282404.1620
1005	E: 13300416.3649 N: 282391.8618
1006	E: 13300490.7599 N: 282377.3505

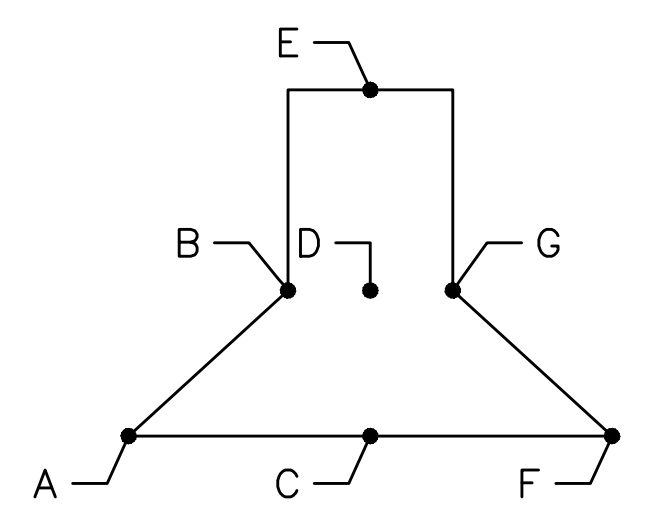
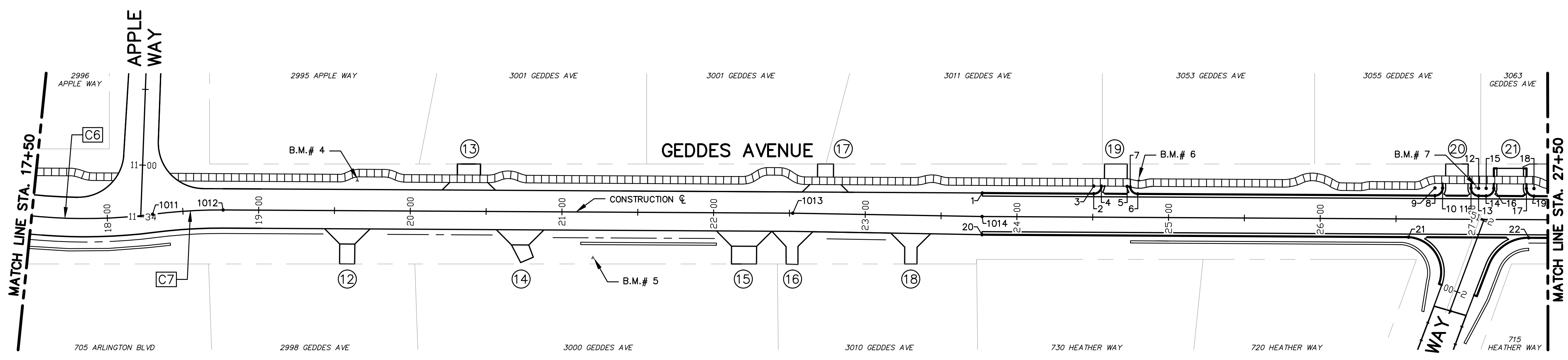
ALIGNMENT POINTS	
PT.	COORDINATE
1007	E: 13300686.6747 N: 282351.8501
1008	E: 13300800.8873 N: 282347.9590
1009	E: 13300893.5850 N: 282353.6504
1010	E: 13300948.8896 N: 282352.6670



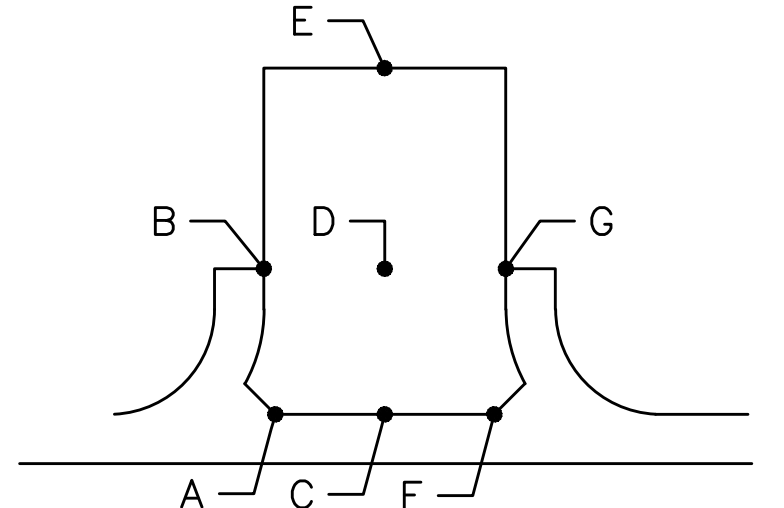
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
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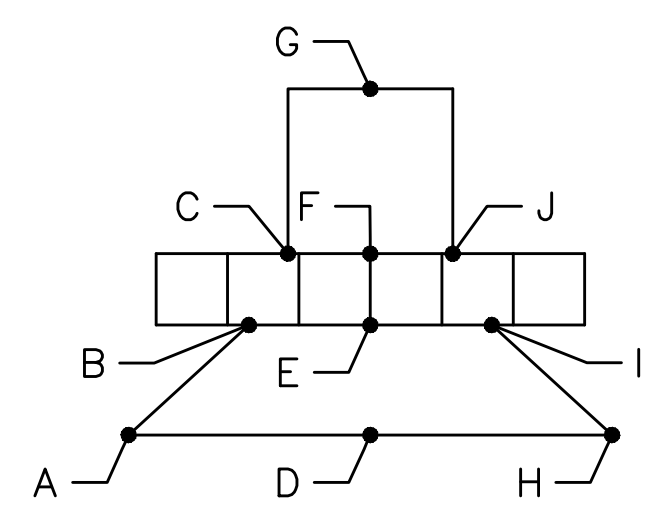
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
GEDDES AVENUE CONSTRUCTION & ALIGNMENT PLAN
STA. 17+50 TO STA. 27+50
SCALE PLAN: 1"=40'
DRAWING No. ALIGN-02
SHEET No.



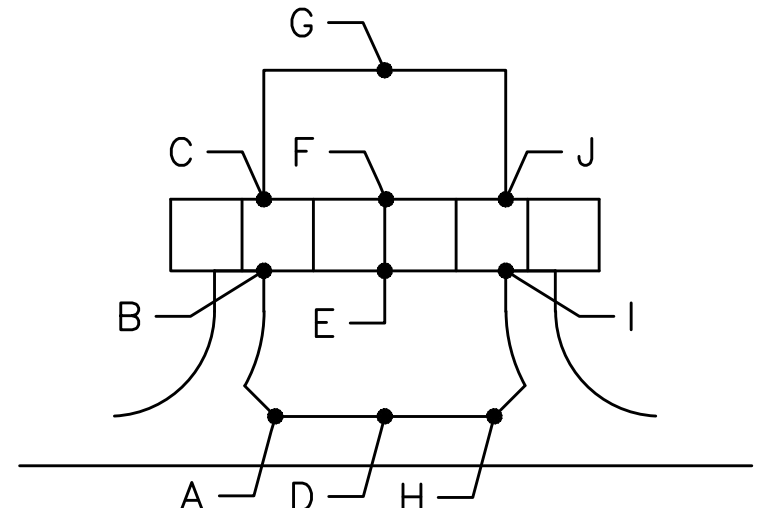
DRIVEWAY LAYOUT WITHOUT SIDEWALK IN SHOULDER SECTION



DRIVEWAY LAYOUT WITHOUT SIDEWALK IN CURB SECTION



DRIVEWAY LAYOUT WITH SIDEWALK IN SHOULDER SECTION



DRIVEWAY LAYOUT WITH SIDEWALK IN CURB SECTION

BENCH MARK INFORMATION		
B.M.#	DESCRIPTION	ELEV.
4	BOAT SPIKE IN S. SIDE POWER POLE ON THE N. SIDE OF GEDDES, 2ND POLE E'LY OF APPLE WAY	848.158
5	BOAT SPIKE IN N. SIDE POWER POLE ON THE S. SIDE OF GEDDES ADJACENT TO HOUSE #3000	859.581
6	BOAT SPIKE IN S. SIDE POWER POLE ON THE N. SIDE OF GEDDES AT HOUSE #3033, 3051, 3053	863.316
7	RAILROAD SPIKE IN S. SIDE POWER POLE ON THE N. SIDE OF GEDDES OPPOSITE HEATHER WAY	852.601

CURVE ALIGNMENT - GEDDES AVE					
CURVE #	RADIUS	LENGTH	CHORD DIRECTION	START POINT	END POINT
C6	350.00'	93.58'	N87° 53' 27.61"E	E: 13300948.8896 N: 282352.6670	E: 13301042.1315 N: 282356.1007
C7	350.00'	46.60'	N84° 02' 44.17"E	E: 13301042.1315 N: 282356.1007	E: 13301088.4490 N: 282360.9316

BACK OF CURB POINTS	
PT.	COORDINATE
1	E: 13301588.0700 N: 282393.6115
2	E: 13301661.5299 N: 282396.3565
3	E: 13301661.3432 N: 282401.3530
4	E: 13301666.3397 N: 282401.5397
5	E: 13301683.3308 N: 282402.0991
6	E: 13301690.5089 N: 282397.4394

BACK OF CURB POINTS	
PT.	COORDINATE
7	E: 13301685.3624 N: 282401.8075
8	E: 13301886.3394 N: 282404.7571
9	E: 13301886.1527 N: 282409.7536
10	E: 13301891.1492 N: 282409.9403
11	E: 13301909.9316 N: 282410.6423
12	E: 13301914.9281 N: 282410.8289

BACK OF CURB POINTS	
PT.	COORDINATE
13	E: 13301915.1148 N: 282405.8324
14	E: 13301920.0694 N: 282406.0175
15	E: 13301919.8827 N: 282411.0140
16	E: 13301924.8792 N: 282411.2005
17	E: 13301946.4346 N: 282412.0061
18	E: 13301951.4311 N: 282412.1929

ALIGNMENT POINTS	
PT.	COORDINATE
1011	E: 13301042.1315 N: 282356.1007
1012	E: 13301088.4490 N: 282360.9316
1013	E: 13301463.8001 N: 282374.9566
1014	E: 13301588.6488 N: 282378.1223

DRIVEWAY 13		
PT.	ELEV.	COORDINATE
A	850.78	E: 13301232.1398 N: 282380.3113
B	0.00	E: 13301236.9496 N: 282385.4945
C	850.55	E: 13301241.7594 N: 282390.6777
D	851.50	E: 13301249.7485 N: 282380.9693
E	851.00	E: 13301249.5211 N: 282385.9643
F	850.90	E: 13301249.3751 N: 282390.9623
G	850.18	E: 13301249.1040 N: 282398.2179
H	852.21	E: 13301267.3572 N: 282381.6273
I	851.56	E: 13301262.0926 N: 282386.4340
J	851.26	E: 13301256.9908 N: 282391.2469

DRIVEWAY 12		
PT.	ELEV.	COORDINATE
A	847.69	E: 13301185.7779 N: 282352.5607
B	847.70	E: 13301176.1583 N: 282342.1942
C	846.84	E: 13301170.8209 N: 282352.0010
D	847.50	E: 13301171.1942 N: 282342.0088
E	848.29	E: 13301171.6763 N: 282328.8550
F	846.31	E: 13301155.8632 N: 282351.4428
G	847.30	E: 13301166.2302 N: 282341.8233

DRIVEWAY 14		
PT.	ELEV.	COORDINATE
A	854.05	E: 13301300.3766 N: 282356.8430
B	854.09	E: 13301290.7570 N: 282346.4765
C	852.79	E: 13301284.7145 N: 282356.2567
D	853.83	E: 13301285.0879 N: 282346.2647
E	0.00	E: 13301290.0608 N: 282336.6265
F	851.70	E: 13301269.0524 N: 282355.6725
G	853.48	E: 13301279.4188 N: 282346.0528

DRIVEWAY 15		
PT.	ELEV.	COORDINATE
A	858.80	E: 13301450.5575 N: 282362.4540
B	858.28	E: 13301440.9379 N: 282352.0884
C	858.40	E: 13301432.3118 N: 282361.7717
D	858.27	E: 13301432.6852 N: 282351.7800
E	858.23	E: 13301433.1227 N: 282340.0709
F	857.96	E: 13301414.0660 N: 282361.0913
G	858.25	E: 13301424.4325 N: 282351.4716

DRIVEWAY 16		
PT.	ELEV.	COORDINATE
A	859.38	E: 13301477.5270 N: 282363.3008
B	858.72	E: 13301468.1969 N: 282353.1818
C	859.10	E: 13301464.0225 N: 282362.9593
D	858.63	E: 13301464.2765 N: 282352.9422
E	858.18	E: 13301464.7930 N: 282341.2905
F	858.80	E: 13301450.5575 N: 282362.4540
G	858.54	E: 13301460.3562 N: 282352.7026

DRIVEWAY 17		
PT.	ELEV.	COORDINATE
A	859.74	E: 13301469.4663 N: 282389.1796
B	859.34	E: 13301474.2761 N: 282394.3628
C	859.35	E: 13301479.0859 N: 282399.5460
D	860.08	E: 13301484.7143 N: 282389.7494
E	859.50	E: 13301484.5276 N: 282394.7459
F	859.40	E: 13301484.3409 N: 282399.7424
G	858.41	E: 13301484.0203 N: 282408.3208
H	860.45	E: 13301499.9623 N: 282390.3191
I	859.68	E: 13301494.7791 N: 282402.0991
J	859.46	E: 13301489.5959 N: 282399.9387

DRIVEWAY 18		
PT.	ELEV.	COORDINATE
A	861.23	E: 13301555.2269 N: 282365.2710
B	860.26	E: 13301546.6600 N: 282356.0390
C	860.98	E: 13301542.3541 N: 282364.9455
D	860.18	E: 13301542.5838 N: 282355.8867
E	859.20	E: 13301542.9982 N: 282344.7962
F	860.61	E: 13301528.9486 N: 282364.6047
G	860.09	E: 13301538.5076 N: 282355.7344

DRIVEWAY 19		
PT.	ELEV.	COORDINATE
A	861.14	E: 13301669.0080 N: 282396.6360
B	861.40	E: 13301668.3383 N: 282401.6144
C	861.68	E: 13301668.1503 N: 282406.6449
D	860.91	E: 13301674.7933 N: 282396.8521
E	861.05	E: 13301674.6066 N: 282401.8487
F	861.12	E: 13301674.4186 N: 282406.8792
G	861.60	E: 13301674.0593 N: 282416.4936
H	860.67	E: 13301683.0313 N: 282397.1600
I	860.81	E: 13301683.3308 N: 282413.5654
J	860.88	E: 13301683.1396 N: 282407.2050

DRIVEWAY 20		
PT.	ELEV.	COORDINATE
A	852.71	E: 13301893.8175 N: 282405.0365
B	852.95	E: 13301893.0358 N: 282413.0129
C	853.05	E: 13301892.8490 N: 282418.0092
D	852.61	E: 13301900.7271 N: 282405.2947
E	852.85	E: 13301900.4284 N: 282413.2892
F	852.95	E: 13301900.2418 N: 282418.2853
G	853.18	E: 13301899.9473 N: 282426.1894
H	852.52	E: 13301907.6367 N: 282405.5529
I	852.76	E: 13301907.8210 N: 282414.9294
J	852.86	E: 13301907.6345 N: 282418.5613

DRIVEWAY 21		
PT.	ELEV.	COORDINATE
A	852.34	E: 13301927.5475 N: 282406.2970
B	852.58	E: 13301926.7660 N: 282414.2733
C	852.68	E: 13301926.5796 N: 282419.2686
D	852.29	E: 13301935.8436 N: 282406.6070
E	852.82	E: 13301935.5450 N: 282414.6014
F	852.92	E: 13301935.3584 N: 282419.5964
G	853.38	E: 13301935.1631 N: 282424.8215
H	852.37	E: 13301944.1397 N: 282406.9170
I	853.21	E: 13301944.3239 N: 282414.9294
J	853.31	E: 13301944.1372 N: 282419.9242



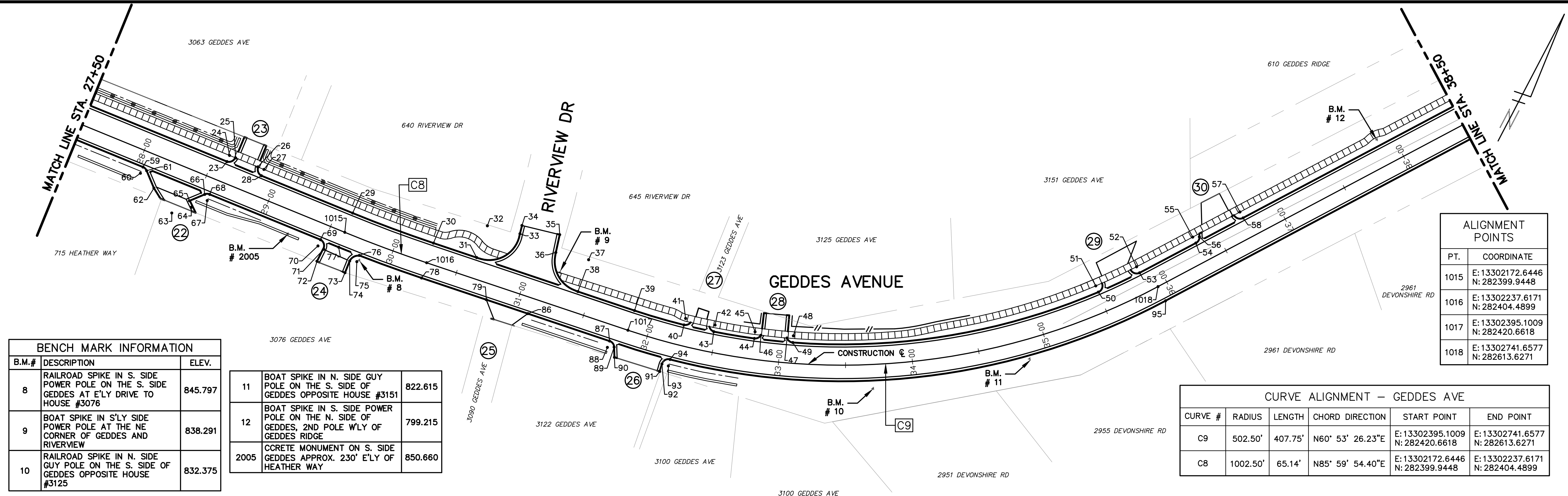
ISSUED FOR BIDS	APR. 22, 2015	ALP/AMN	CEH	CHECKED
FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/AMN	CEH	
FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/AMN	CEH	
PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/AMN	CEH	
REV. DESCRIPTION	DATE	DRAWN	CHECKED	

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
www.annarbor.org



PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
GEDDES AVENUE CONSTRUCTION & ALIGNMENT PLAN
STA. 27+50 TO STA. 38+50

SCALE PLAN: 1"=40'
DRAWING No. ALIGN-03
SHEET No.



PT.	COORDINATE
1015	E: 13302172.6446 N: 282399.9448
1016	E: 13302237.6171 N: 282404.4899
1017	E: 13302395.1009 N: 282420.6618
1018	E: 13302741.6577 N: 282613.6271

B.M.#	DESCRIPTION	ELEV.
8	RAILROAD SPIKE IN S. SIDE POWER POLE ON THE S. SIDE GEDDES AT E'LY DRIVE TO HOUSE #3076	845.797
9	BOAT SPIKE IN S'LY SIDE POWER POLE AT THE NE CORNER OF GEDDES AND RIVERVIEW	838.291
10	RAILROAD SPIKE IN N. SIDE GUY POLE ON THE S. SIDE OF GEDDES OPPOSITE HOUSE #3125	832.375

11	BOAT SPIKE IN N. SIDE GUY POLE ON THE S. SIDE OF GEDDES OPPOSITE HOUSE #3151	822.615
12	BOAT SPIKE IN S. SIDE POWER POLE ON THE N. SIDE OF GEDDES, 2ND POLE W'LY OF GEDDES RIDGE	799.215
2005	CONCRETE MONUMENT ON S. SIDE OF GEDDES APPROX. 230' E'LY OF HEATHER WAY	850.660

CURVE #	RADIUS	LENGTH	CHORD DIRECTION	START POINT	END POINT
C9	502.50'	407.75'	N60° 53' 26.23"E	E: 13302395.1009 N: 282420.6618	E: 13302741.6577 N: 282613.6271
C8	1002.50'	65.14'	N85° 59' 54.40"E	E: 13302172.6446 N: 282399.9448	E: 13302237.6171 N: 282404.4899

PT.	COORDINATE
23	E: 13302070.8672 N: 282411.6525
24	E: 13302070.6805 N: 282416.6490
25	E: 13302075.6779 N: 282416.8099
26	E: 13302093.3617 N: 282417.4965
27	E: 13302098.3582 N: 282417.6832
28	E: 13302098.5443 N: 282412.6867
29	E: 13302172.0629 N: 282415.4339
30	E: 13302236.2242 N: 282419.9284
31	E: 13302270.0385 N: 282423.3974

PT.	COORDINATE
32	E: 13302267.4871 N: 282448.2669
33	E: 13302292.0562 N: 282416.6490
34	E: 13302290.8784 N: 282459.1496
35	E: 13302319.3098 N: 282464.5612
36	E: 13302322.2076 N: 282451.2469
37	E: 13302346.6727 N: 282456.3907
38	E: 13302349.2241 N: 282431.5212
39	E: 13302393.5316 N: 282436.0668
40	E: 13302431.5508 N: 282441.5097

PT.	COORDINATE
41	E: 13302430.6496 N: 282446.4278
42	E: 13302452.7072 N: 282451.0051
43	E: 13302453.8373 N: 282446.1344
44	E: 13302483.4397 N: 282453.9911
45	E: 13302481.9377 N: 282458.7602
46	E: 13302486.9041 N: 282458.1819
47	E: 13302505.5535 N: 282464.3755
48	E: 13302509.1863 N: 282467.8110
49	E: 13302510.8729 N: 282463.1005

PT.	COORDINATE
50	E: 13302702.8287 N: 282591.5262
51	E: 13302699.1423 N: 282377.0676
52	E: 13302720.9683 N: 282620.4579
53	E: 13302724.8811 N: 282617.3451
54	E: 13302753.9012 N: 282654.8785
55	E: 13302749.9415 N: 282657.9315
56	E: 13302754.4321 N: 282660.1302
57	E: 13302774.3002 N: 282689.5113
58	E: 13302778.2592 N: 282686.4575

PT.	COORDINATE
59	E: 13302015.4940 N: 282382.0641
60	E: 13302015.6807 N: 282377.0676
61	E: 13302019.0818 N: 282380.7327
62	E: 13302029.3961 N: 282371.1614
63	E: 13302049.2168 N: 282359.7795
64	E: 13302060.6839 N: 282369.7100
65	E: 13302057.4321 N: 282373.4765
66	E: 13302065.8260 N: 282382.5303
67	E: 13302069.4421 N: 282379.0765

PT.	ELEV.	COORDINATE
A	851.87	E: 13302061.5341 N: 282383.7845
B	850.61	E: 13302054.7488 N: 282373.5240
C	852.13	E: 13302042.3753 N: 282383.0686
D	850.92	E: 13302042.7487 N: 282373.0794
E	849.88	E: 13302051.4040 N: 282366.6608
F	852.23	E: 13302023.2166 N: 282382.3527
G	851.03	E: 13302030.7486 N: 282372.6349

PT.	ELEV.	COORDINATE
A	851.62	E: 13302078.3453 N: 282411.9319
B	852.84	E: 13302077.6252 N: 282418.4777
C	852.94	E: 13302077.4644 N: 282423.4738
D	851.38	E: 13302084.7060 N: 282412.1696
E	852.55	E: 13302084.4725 N: 282418.5284
F	852.65	E: 13302084.2988 N: 282423.5241
G	854.77	E: 13302083.9300 N: 282434.1206
H	851.17	E: 13302091.0668 N: 282412.4073
I	852.26	E: 13302091.3198 N: 282418.5791
J	852.36	E: 13302091.1332 N: 282423.5743

PT.	ELEV.	COORDINATE
A	845.71	E: 13302182.5148 N: 282388.3492
B	845.73	E: 13302182.8147 N: 282381.9245
C	846.38	E: 13302173.9739 N: 282387.9865
D	836.38	E: 13302173.9391 N: 282381.8472
E	846.39	E: 13302173.9557 N: 282371.9903
F	846.98	E: 13302165.3822 N: 282387.6651
G	846.96	E: 13302165.0651 N: 282381.7901

PT.	ELEV.	COORDINATE
A	845.71	E: 13302182.5148 N: 282388.3492
B	845.73	E: 13302182.8147 N: 282381.9245
C	846.38	E: 13302173.9739 N: 282387.9865
D	836.38	E: 13302173.9391 N: 282381.8472
E	846.39	E: 13302173.9557 N: 282371.9903
F	846.98	E: 13302165.3822 N: 282387.6651
G	846.96	E: 13302165.0651 N: 282381.7901

PT.	ELEV.	COORDINATE
A	837.62	E: 13302322.0185 N: 282401.0939
C	837.93	E: 13302307.5136 N: 282399.5923
E	836.12	E: 13302308.7406 N: 282387.6430
F	838.63	E: 13302289.5856 N: 282397.7634

PT.	ELEV.	COORDINATE
A	835.82	E: 13302425.3553 N: 282412.5429
C	835.84	E: 13302410.8682 N: 282410.4272
E	834.57	E: 13302411.9092 N: 282400.2792
F	835.88	E: 13302393.3925 N: 282408.4232

PT.	COORDINATE
68	E: 13302069.2552 N: 282384.0730
69	E: 13302158.4428 N: 282387.4058
70	E: 13302158.6292 N: 282382.4092
71	E: 13302163.6096 N: 282381.9670
72	E: 13302162.6988 N: 282371.7107
73	E: 13302185.2549 N: 282372.5419
74	E: 13302184.8161 N: 282381.9426
75	E: 13302189.8688 N: 282383.7120
76	E: 13302189.5779 N: 282388.7035

PT.	COORDINATE
77	E: 13302173.0927 N: 282387.9532
78	E: 13302238.8429 N: 282392.5527
79	E: 13302289.5856 N: 282397.7634
86	E: 13302322.0185 N: 282401.0939
87	E: 13302385.9486 N: 282407.6588
88	E: 13302386.4591 N: 282402.6850
89	E: 13302390.9400 N: 282404.9034
90	E: 13302394.2974 N: 282398.1220
91	E: 13302429.3982 N: 282402.4517

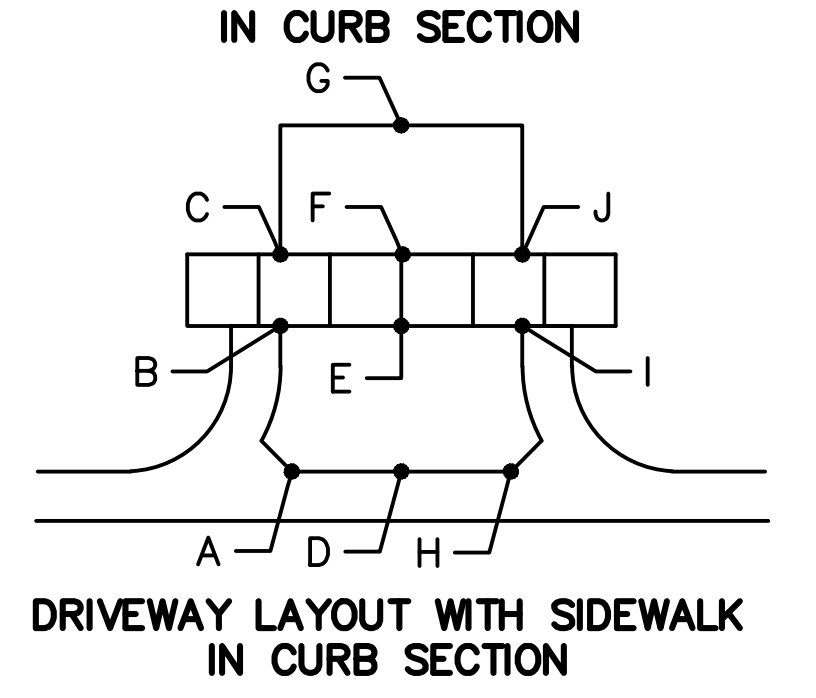
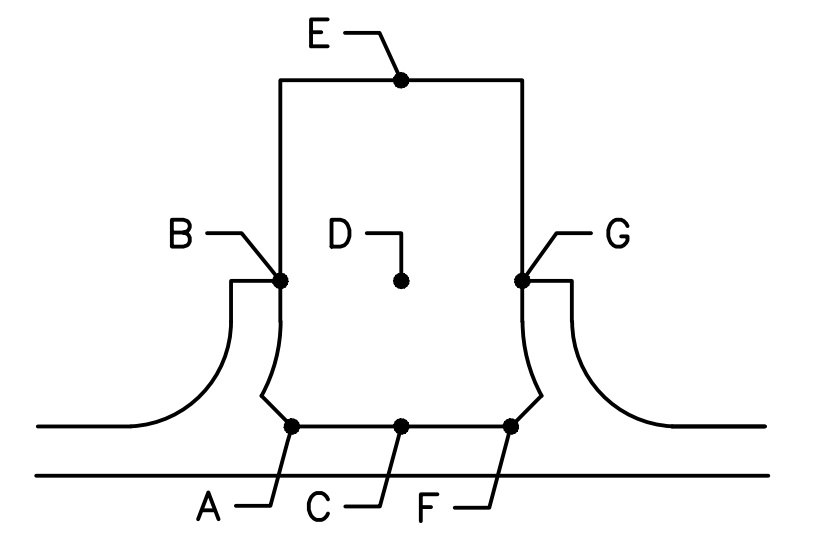
PT.	COORDINATE
92	E: 13302428.6106 N: 282408.1701
93	E: 13302433.5638 N: 282408.8523
94	E: 13302432.6995 N: 282413.7771
95	E: 13302751.1595 N: 282606.2980

PT.	ELEV.	COORDINATE
A	836.25	E: 13302438.6989 N: 282442.8669
B	836.55	E: 13302437.3763 N: 282445.6628
C	836.65	E: 13302437.1396 N: 282450.7133
D	836.22	E: 13302442.8891 N: 282443.7217
E	836.52	E: 13302442.1084 N: 282446.6434
F	836.62	E: 13302441.2576 N: 282451.5700
G	837.03	E: 13302440.3215 N: 282457.8715
H	836.18	E: 13302447.0715 N: 282444.6134
I	836.48	E: 13302447.1729 N: 282447.7048
J	836.58	E: 13302445.3756 N: 282452.4267

PT.	ELEV.	COORDINATE
A	835.33	E: 13302490.5603 N: 282456.1813
B	835.63	E: 13302488.9367 N: 282458.8795
C	835.73	E: 13302487.6828 N: 282463.6637
D	835.09	E: 13302497.2065 N: 282458.3356
E	835.45	E: 13302496.3673 N: 282461.2198
F	835.55	E: 13302494.7989 N: 282465.9675
G	837.05	E: 13302491.0950 N: 282477.3164
H	834.84	E: 13302503.8211 N: 282460.5850
I	835.23	E: 13302503.5442 N: 282463.6677
J	835.33	E: 13302502.1647 N: 282468.4823

PT.	ELEV.	COORDINATE
A	814.72	E: 13302707.8674 N: 282597.1112
B	814.84	E: 13302703.8343 N: 282600.1000
C	814.74	E: 13302700.1753 N: 282603.5096
D	814.07	E: 13302714.0800 N: 282604.2434
E	814.17	E: 13302710.2783 N: 282607.4911
F	814.27	E: 13302710.1768 N: 282611.5603
G	813.50	E: 13302702.6395 N: 282624.3170
H	813.57	E: 13302720.1529 N: 282611.4950
I	813.60	E: 13302716.5707 N: 282615.0117
J	813.70	E: 13302713.9964 N: 282619.7657

PT.	ELEV.	COORDINATE
A	809.41	E: 13302758.4710 N: 282660.8031
B	809.01	E: 13302754.7091 N: 282664.1125
C	808.91	E: 13302752.2572 N: 282669.1203
D	808.56	E: 13302766.0799 N: 282670.6676
E	808.43	E: 13302762.3670 N: 282674.0405
F	808.33	E: 13302759.1615 N: 282678.0713
G	807.93	E: 13302749.8837 N: 282689.7930
H	807.91	E: 13302773.6887 N: 282680.5321
I	807.85	E: 13302770.0248 N: 282683.9686
J	807.75	E: 13302766.0658 N: 282687.0224





APR. 22, 2015
MAR. 26, 2015
MAR. 13, 2015
JAN. 29, 2015

ALP/MN
ALP/MN
ALP/MN
ALP/MN

ISSUED FOR BIDS
FINAL PLAN SUBMITTAL
FINAL REVIEW SUBMITTAL
PRELIMINARY PLAN SUBMITTAL

REV. DESCRIPTION
DATE

BRANN
CHECKED

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
www.annarbor.org

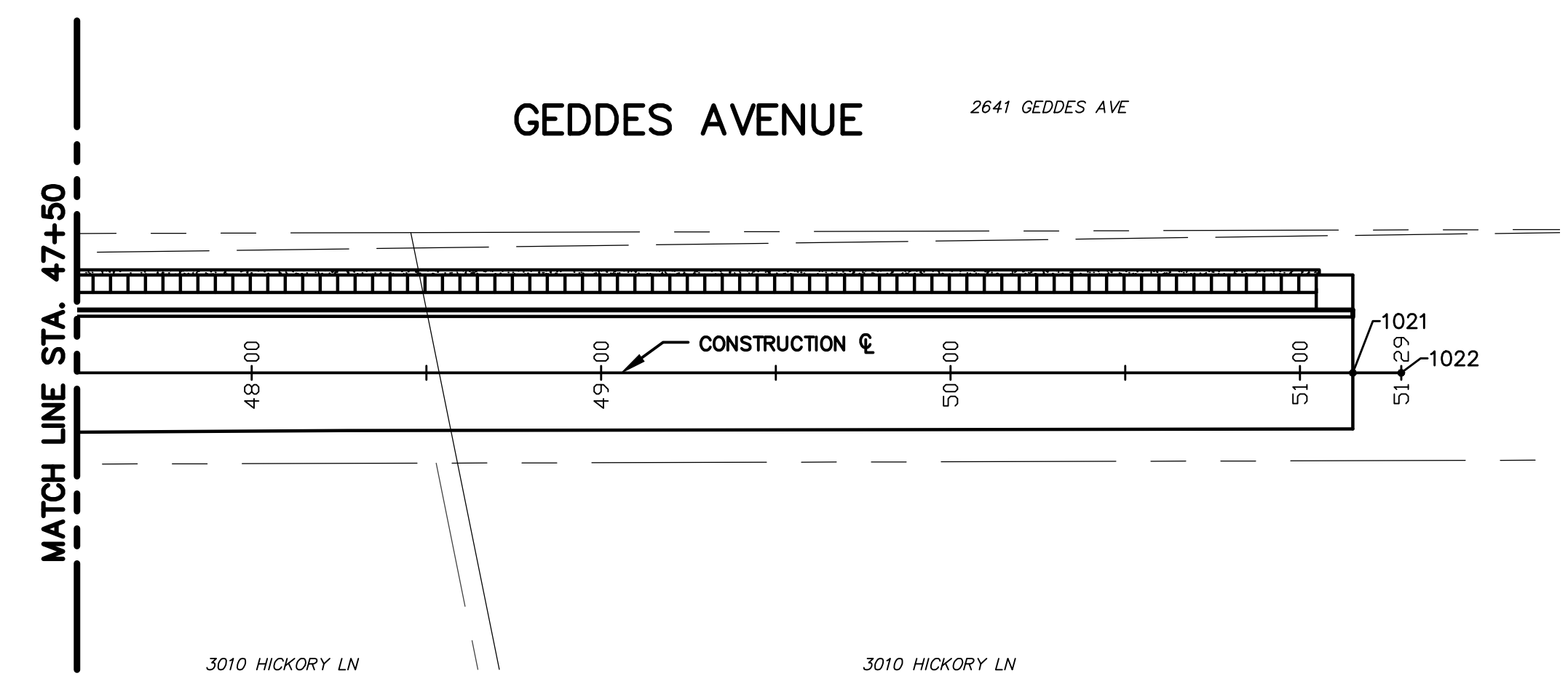
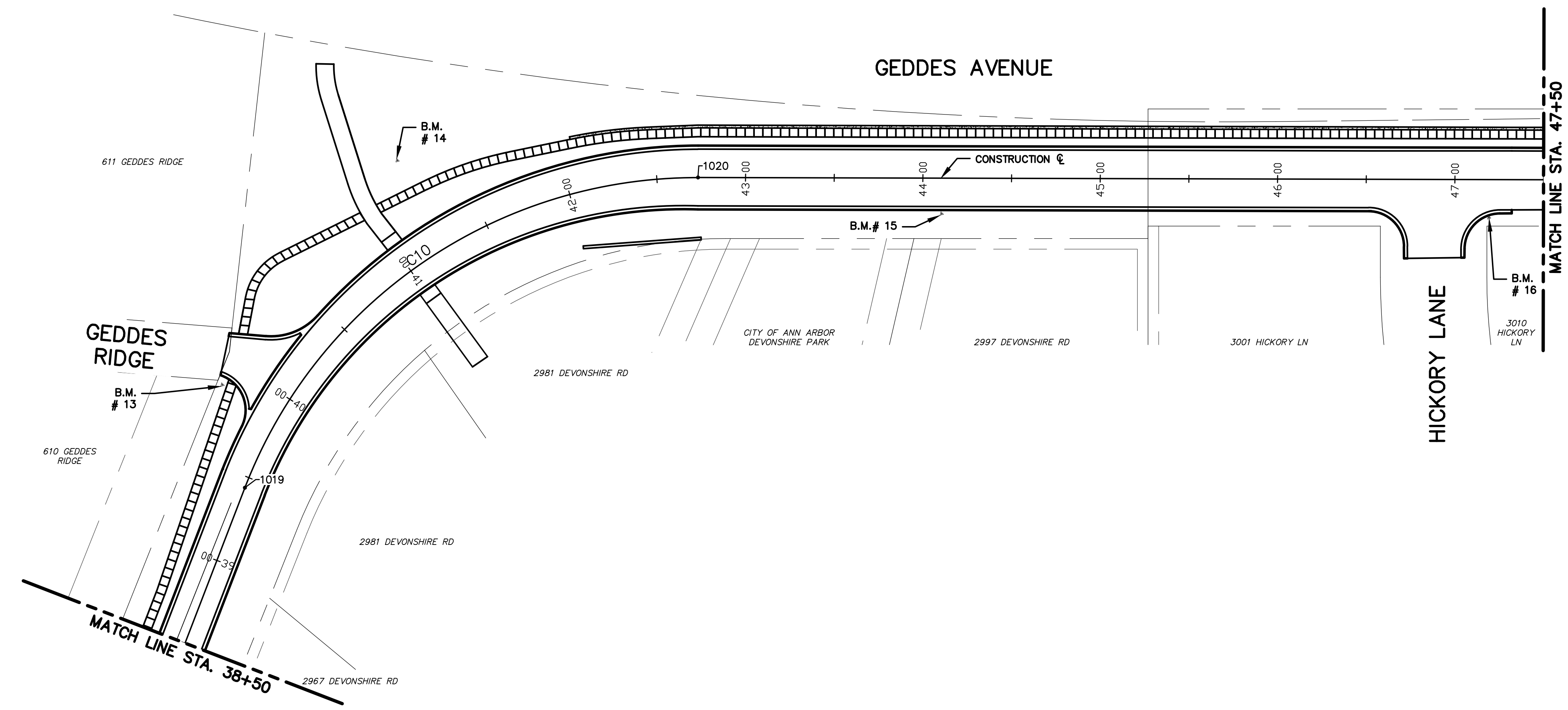


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
GEDDES AVENUE CONSTRUCTION & ALIGNMENT PLAN
STA. 38+50 TO STA. 51+15 (P.O.E.)

SCALE PLAN: 1"=40'
DRAWING No. ALIGN-04

SHEET No.

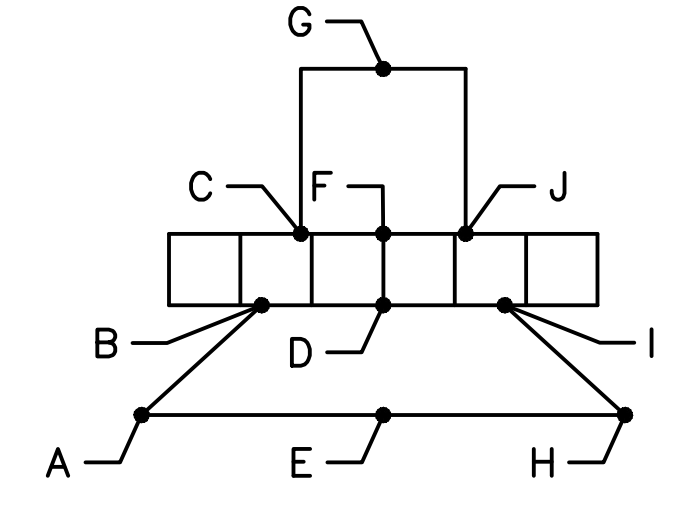
21 OF 187



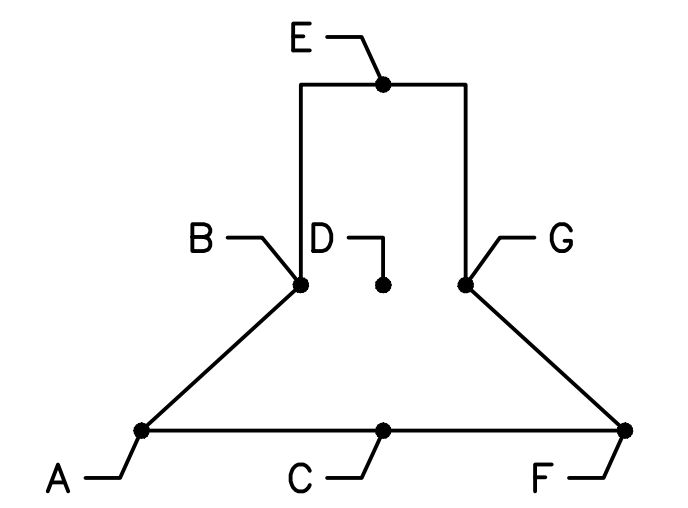
BENCH MARK INFORMATION		
B.M.#	DESCRIPTION	ELEV.
13	ARROW ON HYDRANT AT THE SW CORNER OF GEDDES AND GEDDES RIDGE	781.887
14	BOLT IN POWER POLE ON THE N. SIDE OF GEDDES, N'LY OF "GALLUP PARK" STONE SIGN	773.714
15	SPIKE IN N. SIDE POWER POLE ON THE S. SIDE GEDDES, 2ND POLE W'LY OF HICKORY LANE	764.777
16	SPIKE IN N. SIDE POWER POLE AT THE SE CORNER OF GEDDES AND HICKORY LANE	768.324

ALIGNMENT POINT TABLE	
PT #	COORDINATE
1019	E: 13302956.2089 N: 282891.7820
1020	E: 13303250.9941 N: 282986.4796
1021	E: 13304057.2512 N: 282744.0207
1022	E: 13304070.5319 N: 282740.0269

ALIGNMENT CURVE TABLE - GEDDES AVE					
CURVE #	RADIUS	LENGTH	CHORD DIRECTION	START POINT	END POINT
C10	273.00'	329.21'	N72° 11' 26.72"E	E: 13302956.2089 N: 282891.7820	E: 13303250.9941 N: 282986.4796



DRIVEWAY LAYOUT WITH SIDEWALK



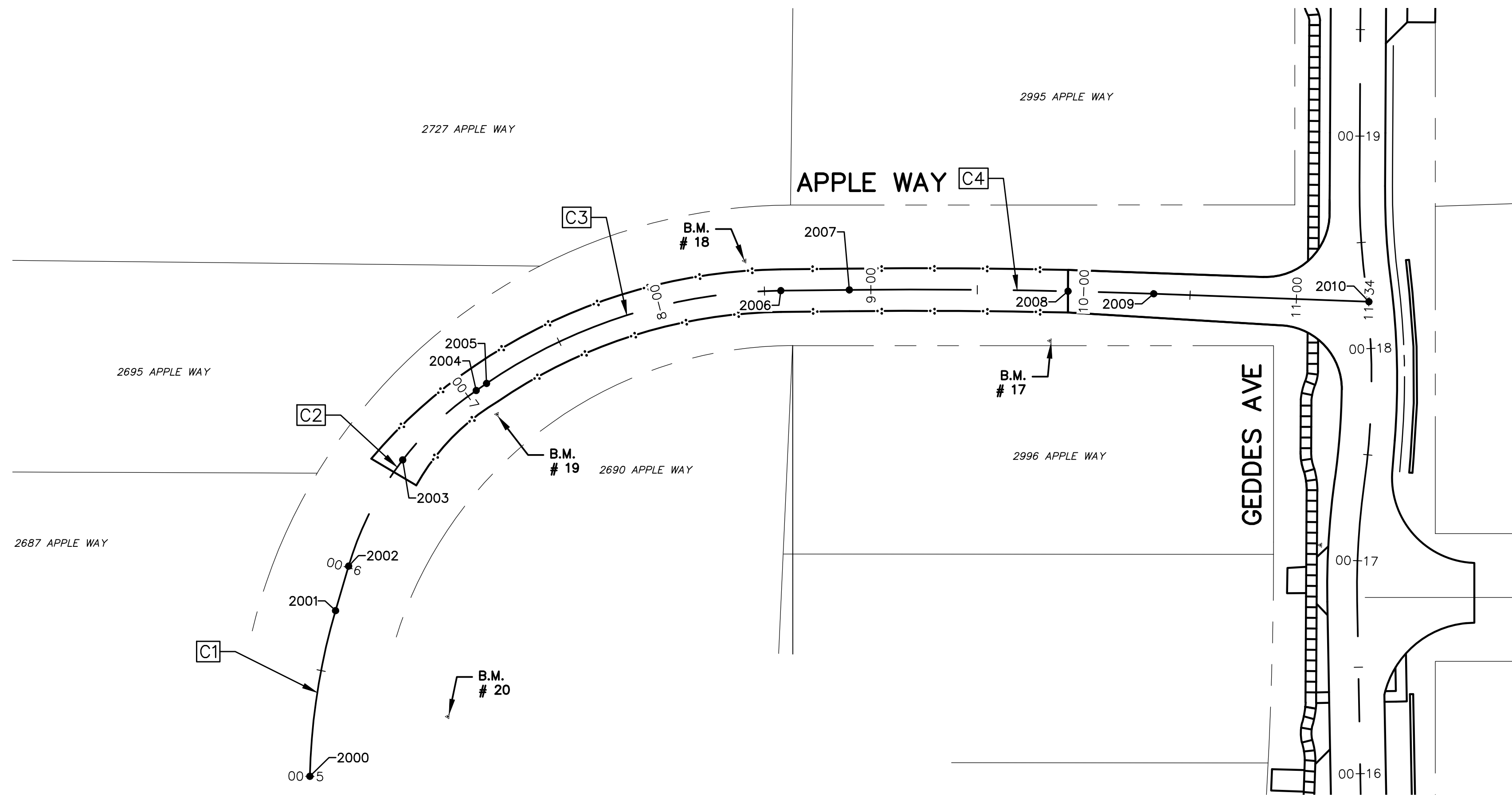
DRIVEWAY LAYOUT WITHOUT SIDEWALK

BACK OF CURB POINT TABLE	
PT #	COORDINATE
106	E: 13302965.7081 N: 282884.4496
96	E: 13302947.1605 N: 282905.4294
97	E: 13302964.3310 N: 282925.3327
98	E: 13302949.1459 N: 282939.5337
99	E: 13302961.3080 N: 282956.3960
100	E: 13302972.7177 N: 282977.8234

BACK OF CURB POINT TABLE	
PT #	COORDINATE
101	E: 13302991.9582 N: 282970.2691
103	E: 13303023.1785 N: 282973.0927
102	E: 13303004.7495 N: 283002.8479
104	E: 13303256.1715 N: 283003.7190
107	E: 13303245.7546 N: 282969.2599
109	E: 13303602.1818 N: 282841.1888

BACK OF CURB POINT TABLE	
PT #	COORDINATE
108	E: 13303609.5274 N: 282859.8646
110	E: 13303621.4112 N: 282835.6906
113	E: 13303653.7787 N: 282824.5743
111	E: 13303619.5320 N: 282829.1184
112	E: 13303652.3256 N: 282819.7699
114	E: 13303672.9223 N: 282818.7843

BACK OF CURB POINT TABLE	
PT #	COORDINATE
116	E: 13303684.9802 N: 282836.1168
115	E: 13303678.4784 N: 282837.9971
105	E: 13304062.7193 N: 282762.2729



ALIGNMENT POINTS	
PT #	COORDINATE
2000	E: 13300790.2585 N: 282841.6825
2001	E: 13300868.5293 N: 282832.9655
2002	E: 13300889.6675 N: 282827.7355
2003	E: 13300940.5838 N: 282804.4963
2004	E: 13300974.6533 N: 282771.3858
2005	E: 13300978.1726 N: 282766.6823

ALIGNMENT POINTS	
PT #	COORDINATE
2006	E: 13301027.6363 N: 282630.4169
2007	E: 13301029.3749 N: 282598.2808
2008	E: 13301033.1682 N: 282495.5966
2009	E: 13301033.6951 N: 282455.3256
2010	E: 13301034.3397 N: 282354.1796

CURVE ALIGNMENT - GEDDES AVE					
CURVE #	RADIUS	LENGTH	CHORD DIRECTION	START POINT	END POINT
C1	300.00'	78.98'	S83° 38' 42.77"E	E: 13300790.2585 N: 282841.6825	E: 13300868.5293 N: 282832.9655
C2	151.62'	104.00'	S56° 27' 13.28"E	E: 13300889.6675 N: 282827.7355	E: 13300974.6533 N: 282771.3858
C3	250.00'	147.08'	S19° 57' 02.37"E	E: 13300978.1726 N: 282766.6823	E: 13301027.6363 N: 282630.4169
C4	2999.99'	143.03'	S01° 43' 51.57"E	E: 13301029.3749 N: 282598.2808	E: 13301033.6951 N: 282455.3256

BENCH MARK INFORMATION		
B.M.#	DESCRIPTION	ELEV.
17	SPIKE IN E. SIDE 18" PINE ROOT ON THE W. SIDE OF APPLE WAY AT HOUSE # 2996	830.995
18	HIGHEST POINT ON ROCK ON THE E. SIDE OF APPLE WAY, NEAR S. END AT HOUSE #2739	826.825
19	TOP OF SW'LY END OF 24" CMP ON APPLE WAY OPPOSITE HOUSE #2695	818.548
20	SPIKE IN N. SIDE POWER POLE S'LY OF APPLE WAY NEAR HOUSE #2690	819.667



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
	ISSUED FOR BIDS	APR. 22, 2015	ALP/MN	CEH
	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/MN	CEH
	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/MN	CEH
	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/MN	CEH

CITY OF ANN ARBOR
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
APPLE WAY CONSTRUCTION & ALIGNMENT PLAN

SCALE PLAN: 1"=40'
DRAWING No. **ALIGN-5**



REV.	DESCRIPTION	DATE	DRWN	CHECKED
APR. 22, 2015	ALP/ANN		CEH	
MAR. 26, 2015	ALP/ANN		CEH	
MAR. 13, 2015	ALP/ANN		CEH	
JAN. 29, 2015	ALP/ANN		CEH	

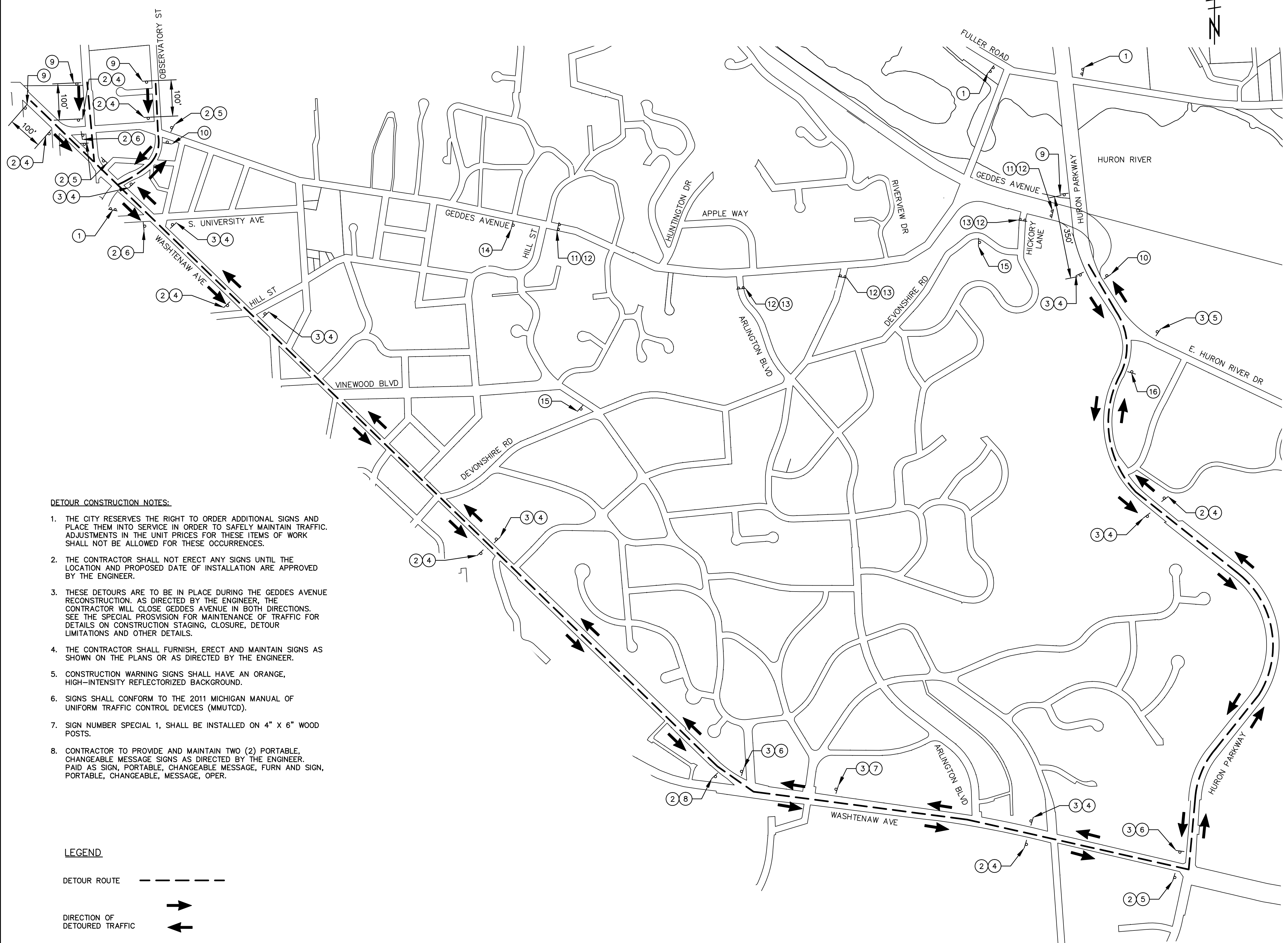
ISSUED FOR BIDS
 FINAL PLAN SUBMITTAL
 FINAL REVIEW SUBMITTAL
 PRELIMINARY PLAN SUBMITTAL

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 GEDDES AVENUE IMPROVEMENTS
 MAINTENANCE OF TRAFFIC
 DETOUR PLAN

SCALE NOT TO SCALE
 SHEET No. MOT-01

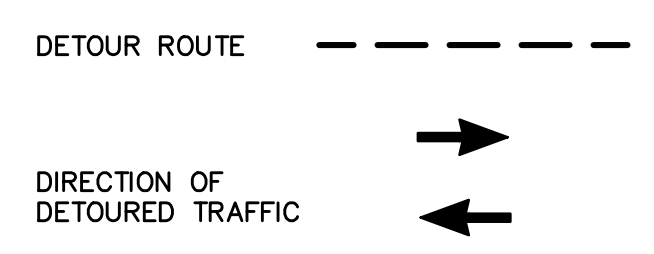
TRAFFIC CONTROL SIGNS		
SIGN	NUMBER / SIZE	QUANTITY
	SPECIAL 1 66" X 84"	2
	SPECIAL 2 30" X 24"	14
	SPECIAL 3 30" X 24"	10
	M4-9(S) 30" X 24"	14
	M4-9(L) 30" X 24"	2
	M4-9(R) 30" X 24"	4
	M4-9(MOD) 30" X 24"	1
	M4-9(MOD) 30" X 24"	1
	W20-2 36" X 36"	4
	M4-8a 24" X 12"	2
	R11-4 60" X 30"	5
	-	5
	R11-2 48" X 30"	3
	SPECIAL 4 36" X 36"	1
	SPECIAL 5 36" X 36"	2
	SPECIAL 6 66" X 84"	1



DETOUR CONSTRUCTION NOTES:

1. THE CITY RESERVES THE RIGHT TO ORDER ADDITIONAL SIGNS AND PLACE THEM INTO SERVICE IN ORDER TO SAFELY MAINTAIN TRAFFIC. ADJUSTMENTS IN THE UNIT PRICES FOR THESE ITEMS OF WORK SHALL NOT BE ALLOWED FOR THESE OCCURRENCES.
2. THE CONTRACTOR SHALL NOT ERECT ANY SIGNS UNTIL THE LOCATION AND PROPOSED DATE OF INSTALLATION ARE APPROVED BY THE ENGINEER.
3. THESE DETOURS ARE TO BE IN PLACE DURING THE GEDDES AVENUE RECONSTRUCTION. AS DIRECTED BY THE ENGINEER, THE CONTRACTOR WILL CLOSE GEDDES AVENUE IN BOTH DIRECTIONS. SEE THE SPECIAL PROVISION FOR MAINTENANCE OF TRAFFIC FOR DETAILS ON CONSTRUCTION STAGING, CLOSURE, DETOUR LIMITATIONS AND OTHER DETAILS.
4. THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN SIGNS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
5. CONSTRUCTION WARNING SIGNS SHALL HAVE AN ORANGE, HIGH-INTENSITY REFLECTORIZED BACKGROUND.
6. SIGNS SHALL CONFORM TO THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD).
7. SIGN NUMBER SPECIAL 1, SHALL BE INSTALLED ON 4" X 6" WOOD POSTS.
8. CONTRACTOR TO PROVIDE AND MAINTAIN TWO (2) PORTABLE, CHANGEABLE MESSAGE SIGNS AS DIRECTED BY THE ENGINEER. PAID AS SIGN, PORTABLE, CHANGEABLE MESSAGE, FURN AND SIGN, PORTABLE, CHANGEABLE, MESSAGE, OPER.

LEGEND

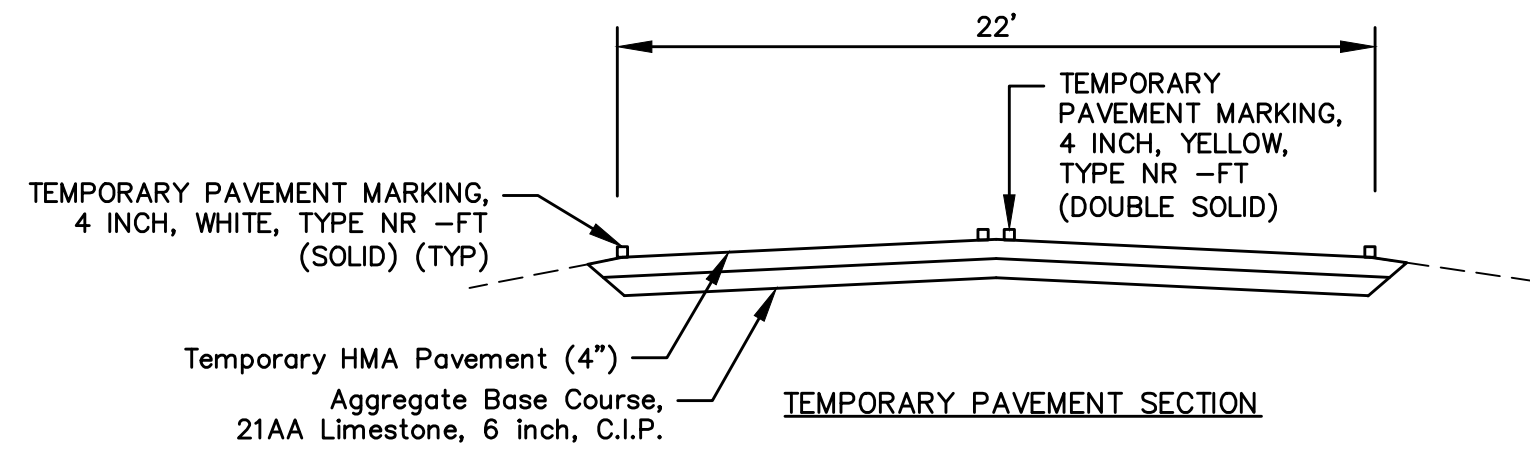


CONSTRUCTION STAGING

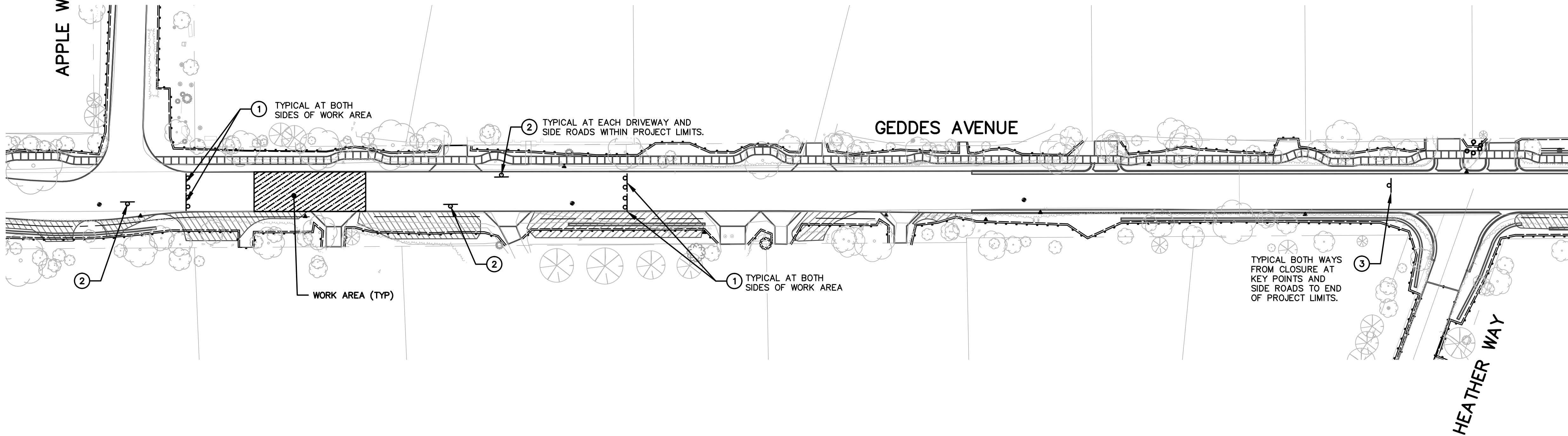
STAGES OF CONSTRUCTION ARE SHOWN FOR THE PURPOSE OF COMPLETING THE RECONSTRUCTION OF GEDDES AVENUE WHILE MAINTAINING ACCESS TO ALL RESIDENCES SOLELY ACCESSED OFF OF GEDDES AVENUE. MULTIPLE ONGOING CONSTRUCTION ACTIVITIES OF WORK ARE EXPECTED TO COMPLETE PROJECT ON TIME. THE CONTRACTOR MAY CHOOSE TO ADJUST THE LIMITS OR SEQUENCING OF CONSTRUCTION IN ORDER TO COMPLETE THE WORK MORE EFFICIENTLY. HOWEVER, CHANGES TO THE RECOMMENDED STAGES MUST BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO CONSTRUCTION AND MUST ASSURE THAT ACCESS IS MAINTAINED AS DESCRIBED ABOVE.

CONSTRUCTION IS TO PROGRESS IN A TRAIN LIKE MANNER, WORKING IN A CONFINED AREA AND COMPLETING THAT WORK PRIOR TO MOVING FURTHER. THE MAINTENANCE OF TRAFFIC SHOWN HERE IS TYPICAL FOR WHAT IS EXPECTED. DUE TO THE DEEP SEWER CONSTRUCTION IT IS ANTICIPATED THAT TRAFFIC WILL NEED TO BE ROUTED IN BOTH DIRECTIONS, AWAY FROM THE WORK SITE IN ORDER TO MAINTAIN ACCESS AT ALL TIME. AT THE END OF EACH DAY THE CONTRACTOR SHALL SECURE OPEN EXCAVATIONS FOLLOWING ALL APPLICABLE REGULATORY RULES.

UTILIZE MAINTENANCE AGGREGATE TO MAINTAIN ACCESS TO GEDDES AVENUE AND DRIVEWAYS.



APPLE WAY



STAGE I - 2015

1. PLACE MESSAGE BOARDS 1 WEEK PRIOR TO START OF CONSTRUCTION. PLACE MESSAGE PER ENGINEER.
2. INSTALLATION OF TRAFFIC CONTROL DEVICES AND MAINTENANCE OF TRAFFIC PER STAGE I.
3. PLACE SOIL EROSION CONTROL ITEMS AND TREE PROTECTION.
4. REMOVE PAVEMENT AS DIRECTED BY ENGINEER AND AS DISCUSSED IN PRECONSTRUCTION MEETING. CITY'S INTENT IS TO MAINTAIN HARD SURFACE AND PROTECT GRADE AS MUCH AS POSSIBLE. DRIVE APPROACHES TO REMAIN UNTIL ROAD BUILDING IS STARTED.
5. CONSTRUCT ALL 8 INCH SANITARY SEWER ON APPLE WAY TO MANHOLE ON GEDDES AVENUE. THIS INCLUDES PLACEMENT OF SANITARY LEADS.
6. CONSTRUCT 8 INCH SANITARY ON GEDDES FROM POB TO 19+00 INCLUDING SANITARY LEADS. PLACE TEMPORARY PLUG ON END OF SEWER. THIS COMPLETES THIS YEAR'S SANITARY PLACEMENT TO THE EAST.
7. CONSTRUCT ALL 8 INCH SANITARY ON HEATHER WAY INCLUDING SANITARY LEADS.
8. CONSTRUCT STORM SEWER ON APPLE WAY TO MANHOLE ON GEDDES AVENUE, R-8.
9. CONSTRUCT TEMPORARY PAVEMENT ON GEDDES IN LOCATION WHERE PAVEMENT WAS REMOVED. PLACE TEMPORARY PAVEMENT MARKINGS.
10. REMOVE ALL TREES FOR ENTIRE PROJECT AFTER OCTOBER 15, 2015.
11. CONSTRUCT FINAL GRAVEL SURFACE FOR APPLE WAY.
12. IF EXISTING TRAFFIC SIGNS HAVE BEEN DISTRUBED BY CONTRACTOR OPERATIONS, THESE SIGNS ARE TO BE REPLACED.
13. FINISH ALL PUNCH LIST ITEMS. ALL PUNCH LIST ITEMS SHALL BE COMPLETED BEFORE SEASONAL SUSPENSION CAN BEGIN.
14. OPEN GEDDES AVENUE TO TRAFFIC THROUGH THE WINTER.

WINTER RESPONSIBILITIES




THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROJECT SITE DURING THE SEASONAL SHUTDOWN IN THE WINTER OF 2015-2016. THE CONTRACTOR SHALL CHECK THE SITE BIWEEKLY AT A MINIMUM, FOR DEFICIENCIES AND SAFETY CONCERNS, INCLUDING BUT NOT LIMITED TO TRAFFIC CONTROL, MAIL DELIVERY, TEMPORARY SURFACE ISSUES, AND SECS MEASURES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER THROUGH WRITTEN NOTIFICATION THAT THEY HAVE CHECKED THE SITE AND FOUND NO ISSUES. IF ISSUES ARE ENCOUNTERED, THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO ADDRESS THE ISSUE & PROVIDE THE ENGINEER WITH A SCHEDULE AND PLAN FOR ADDRESSING THE ISSUE. THE MANAGEMENT OF THE PROJECT THROUGH THE WINTER SHALL BE INCLUDED IN THE ITEM, PROJECT SUPERVISION.

STAGE II - 2016

1. PLACE MESSAGE BOARDS 1 WEEK PRIOR TO START OF CONSTRUCTION. PLACE MESSAGE PER ENGINEER.
2. INSTALLATION OF TRAFFIC CONTROL DEVICES AND MAINTENANCE OF TRAFFIC PER STAGE II.
3. PLACE SOIL EROSION CONTROL ITEMS AND TREE PROTECTION.
4. REMOVE PAVEMENT AS DIRECTED BY ENGINEER. CITY'S INTENT IS TO MAINTAIN HARD SURFACE AND PROTECT GRADE AS MUCH AS POSSIBLE. DRIVE APPROACHES TO REMAIN UNTIL ROAD BUILDING IS STARTED.
5. CONSTRUCT RETAINING WALL ADJACENT TO RAILROAD.
6. CONSTRUCT THE REMAINDER OF THE SANITARY SEWER INCLUDING SANITARY LEADS.
7. CONSTRUCT WATER MAIN INCLUDING STUBS AND LEADS. ONCE THE WATER MAIN HAS BEEN TESTED AND APPROVED CONTRACTOR TO SCHEDULE WATER MAIN CONNECTIONS WITH CITY. ONCE ALL CONNECTIONS ARE APPROVED SCHEDULED TRANSFER OF WATER SERVICES FROM 6 INCH TO 16 INCH WATER MAIN.
 - TO TRANSFER SERVICES FROM 6 INCH TO NEWLY CONSTRUCTED WATER MAIN STUB AT SHIPMAN COURT EXPLORATORY EXCAVATIONS WILL BE REQUIRED TO LOCATE EXISTING WATER LEADS.
8. CONSTRUCT STORM SYSTEM.
9. CONSTRUCT ROAD WITH EDGE DRAIN, COMMUNICATION CONDUIT, INFILTRATION BEDS, SWALES AND OTHER EARTH WORK RELATED ITEMS.
10. GRADE FOR AND PLACE AREAS OF CURB, SIDEWALK AND DRIVE APPROACHES.
11. FINISH GRADE AGGREGATE BASE AND PLACE HMA BASE AND LEVELING COURSE.
12. PREP HMA DRIVES AND PLACE BOTH COURSES OF HMA.
13. PLACE MAST ARM FOUNDATIONS AND RAPID FLASHING BEACON SYSTEM.
14. INSTALL TURF RESTORATION ITEMS AND MULCH BLANKET INSTALLATION. INSTALL PERMANENT SOIL EROSION AND SEDIMENTATION CONTROL DEVICES.
15. ADJUST ALL STRUCTURE TO FINISH GRADE.
16. CONTACT CITY TO PLACE PERMANENT SIGNAGE.
17. INSTALL HMA WEARING COURSE.
18. FINISH PLACEMENT OF BOTH LIFTS OF HMA DRIVES.
19. INSTALL PERMANENT PAVEMENT MARKINGS.
20. REMOVE TEMPORARY SIGNAGE AND OPEN TO TRAFFIC.
21. FINISH ALL PUNCH LIST ITEMS.

MAINTENANCE OF TRAFFIC NOTES:

1. UNLESS OTHERWISE INDICATED ON THE PLANS, ALL SIDE ROADS SHALL REMAIN OPEN TO TRAFFIC EXCEPT DURING CONSTRUCTION OPERATIONS OF SHORT DURATION AND ONLY UPON WRITTEN APPROVAL OF THE ENGINEER.
2. LOCAL ACCESS SHALL BE MAINTAINED AT ALL TIMES FOR EMERGENCY VEHICLES, REFUSE PICK-UP, MAIL DELIVERY AND INGRESS/EGRESS TO ALL PRIVATE PROPERTIES.
3. THE CONTRACTOR MUST ACCOMMODATE SAFE ACCESS TO ALL RESIDENTIAL BUILDINGS LOCATED WITHIN THE CONSTRUCTION AREA.
4. DRIVEWAYS SHALL NOT BE BLOCKED FOR EXTENDED PERIODS OF TIME UNLESS ARRANGEMENTS CAN BE MADE WITH THE AFFECTED PROPERTY OWNER(S). WHEN IT BECOMES NECESSARY TO TEMPORARILY BLOCK DRIVEWAYS, THE CONTRACTOR SHALL NOTIFY THE AFFECTED PROPERTY OWNER(S) IN ADVANCE TO COORDINATE WORK AND ALLOW SUFFICIENT TIME FOR VEHICLES TO VACATE THE AFFECTED PROPERTY.
5. IT MAY BE NECESSARY TO ALLOW FOR VEHICLES TO TEMPORARILY PARK IN THE ROADWAY OR ON SIDE ROADS, AT LOCATIONS THAT DO NOT INTERFERE WITH THE CONTRACTOR'S WORK. DURING THESE PERIODS THE OWNERS OF THE RESPECTIVE VEHICLES MUST BE AVAILABLE, WITH PROPER NOTICE TO MOVE THEIR VEHICLES IF IT BECOMES NECESSARY TO ACCOMMODATE WORK.
6. AT TIMES WHEN IT BECOMES NECESSARY TO TEMPORARILY OBSTRUCT LOCAL TRAFFIC DURING THE PERFORMANCE OF THE WORK, THE CONTRACTOR SHALL MAINTAIN DIRECTIONAL OUTLET SIGNS. THESE SIGNS SHALL BE PLACED AT EACH DRIVEWAY AND SIDE ROADS ON GEDDES AVENUE TO DIRECT TRAFFIC AWAY FROM CONSTRUCTION AREA TO AN OUTLET EITHER ON HURON PARKWAY TO THE EAST OR WASHTENAW AVENUE TO THE WEST. ACCESS SHALL BE MAINTAINED TO ONE OF THESE OUTLETS FOR ALL INCOMING TRAFFIC ONTO GEDDES AVENUE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE DIRECTION OF THESE SIGNS AS CHANGING SITUATIONS WARRANT.
7. FOR SITUATIONS WHEN THE OUTLET PATH IS DISTURBED BY SECONDARY WORK, THE CONTRACTOR SHALL MAINTAIN TRAFFIC BY UTILIZING A FLAGGING OPERATION. A MINIMUM OF TWO (2) FLAGGERS ARE REQUIRED.
8. MAILBOXES AND NEWSPAPER BOXES THAT IN THE WAY OF CONSTRUCTION SHALL BE REMOVED AND RESET IMMEDIATELY IN A TEMPORARY LOCATION APPROVED BY THE ENGINEER. MAIL AND NEWSPAPER DELIVERY SHALL NOT BE INTERRUPTED DURING CONSTRUCTION. UPON COMPLETION OF CONSTRUCTION, ALL MAILBOXES AND NEWSPAPER BOXES, INCLUDING THEIR SUPPORTS, SHALL BE REPOSITIONED IN THEIR PERMANENT LOCATIONS AS APPROVED BY THE ENGINEER.
9. TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE PLANS, DETAILED SPECIFICATION FOR MAINTENANCE OF TRAFFIC AND AS DIRECTED BY THE ENGINEER.
10. SPECIAL OUTLET SIGNS SHALL BE DOUBLE-SIDED, BOTH ARROWS POINTING IN THE SAME DIRECTION.
11. CONTRACTOR TO NOTIFY RESIDENTS OF DRIVEWAYS OR SIDESTREET CLOSURES AND OTHER SIGNIFICANT CHANGES IN TEMPORARY TRAFFIC PATTERN THROUGH DELIVERY OF ENGINEER-APPROVED FLYERS. RESIDENTS SHALL BE GIVEN 48 HOURS NOTICE OF DRIVEWAY OR SIDESTREET CLOSURES.

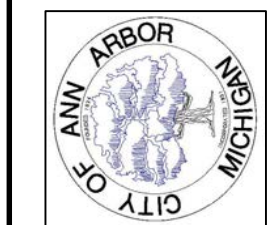
TRAFFIC CONTROL SIGNS		
SIGN	NUMBER/ SIZE	QUANTITY
① 	TYPE III BARRICADE WITH R11-2 48" X 30"	4
② 	SPECIAL 4 30" X 24"	37 *
③ 	R11-4 60" X 30"	5

* SIGN TYPE SPECIAL 4 SHALL BE DOUBLE-SIDED, QUANTITY LISTED IS FOR ONE SIDE OF SIGN POST.



ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	FINAL REVIEW SUBMITTAL	PRELIMINARY PLAN SUBMITTAL	DESCRIPTION	REV.
APR. 22, 2015	MAR. 26, 2015	MAR. 13, 2015	JAN. 29, 2015		
ALP/ANN	ALP/ANN	ALP/ANN	ALP/ANN	DATE	CHECKED
CEH	CEH	CEH	CEH		

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301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
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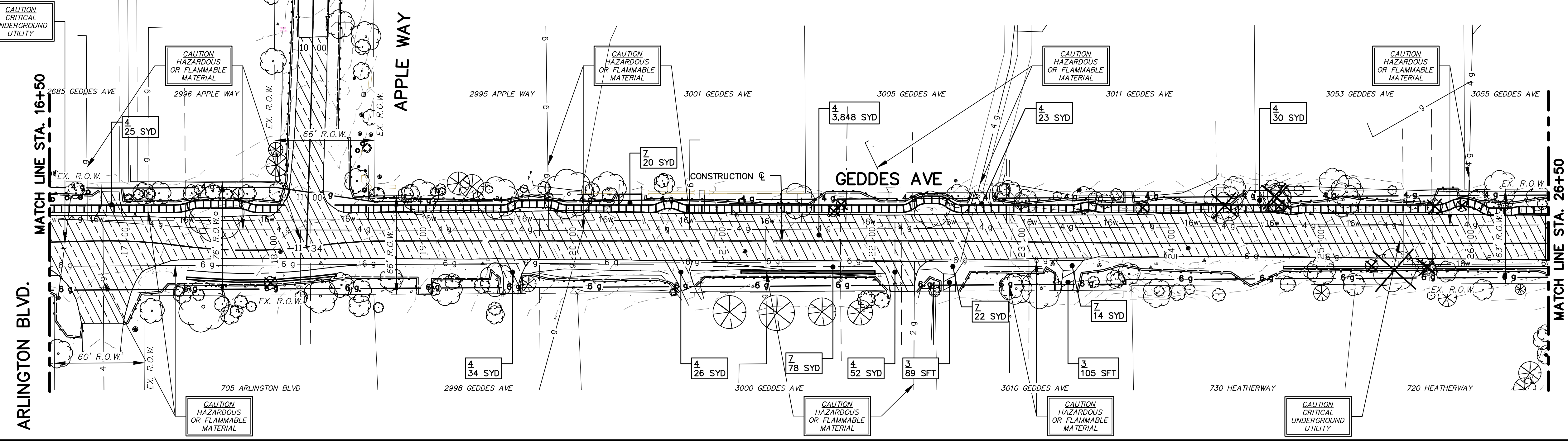
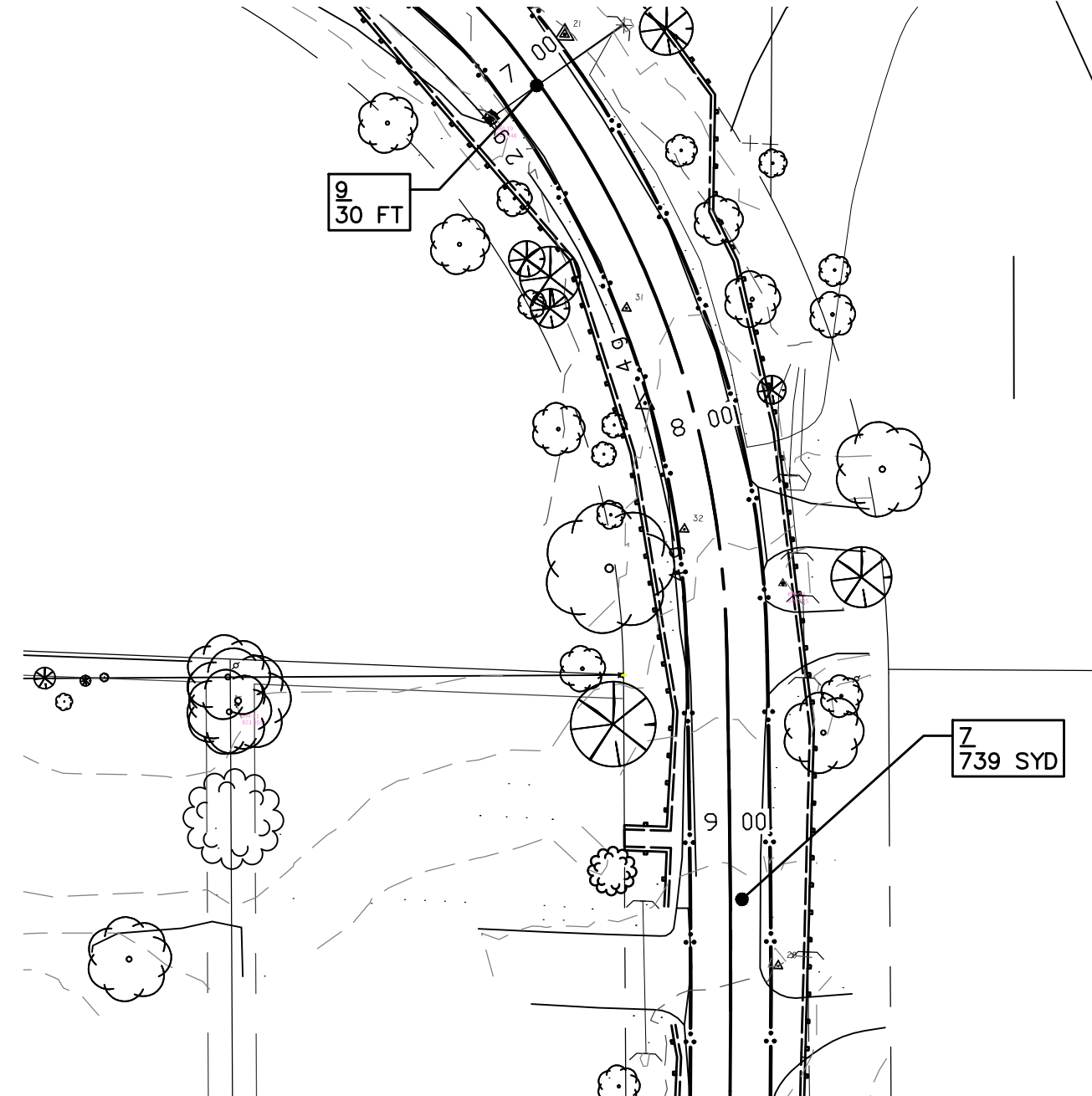
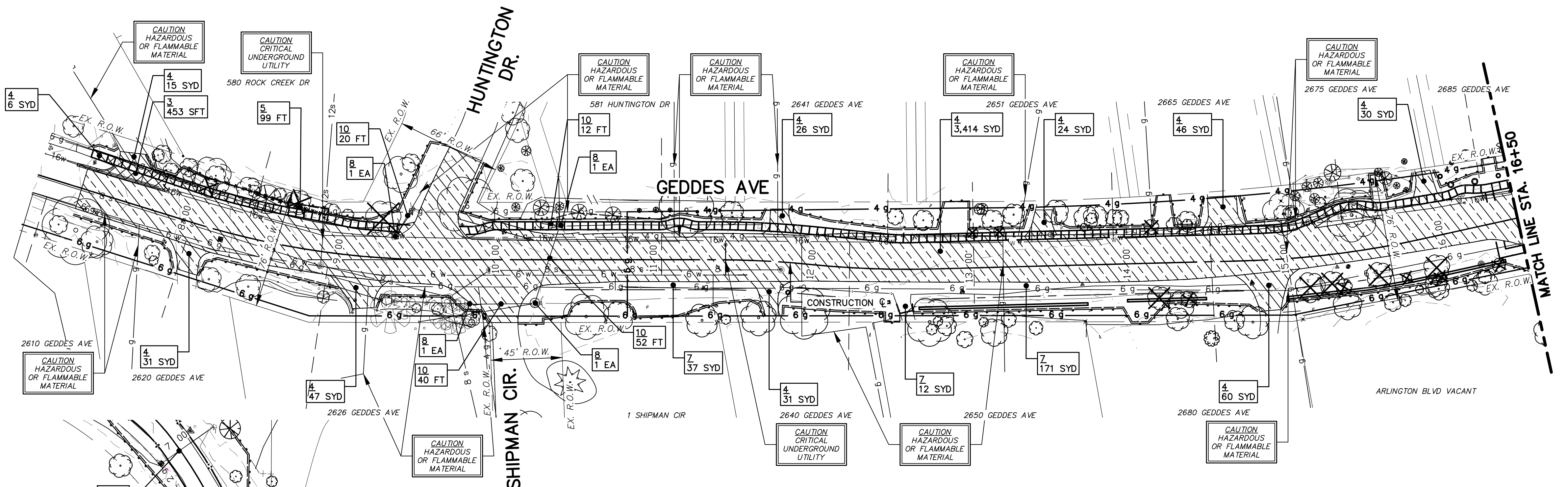
PROJECT MANAGEMENT - CITY OF ANN ARBOR
SCALE NOT TO SCALE
DRAWING No. MOT-02
GEDDES AVENUE IMPROVEMENTS
MAINTENANCE OF TRAFFIC
CONSTRUCTION STAGING TYPICAL



ISSUED FOR BIDS	APR. 22, 2015	ALP/ANN	CEH	CHECKED
FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH	
FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/ANN	CEH	
PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/ANN	CEH	
REV. DESCRIPTION	DATE			

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
SCALE PLAN: 1"=40'
DRAWING No. REM-01
SHEET No. 25 OF 187



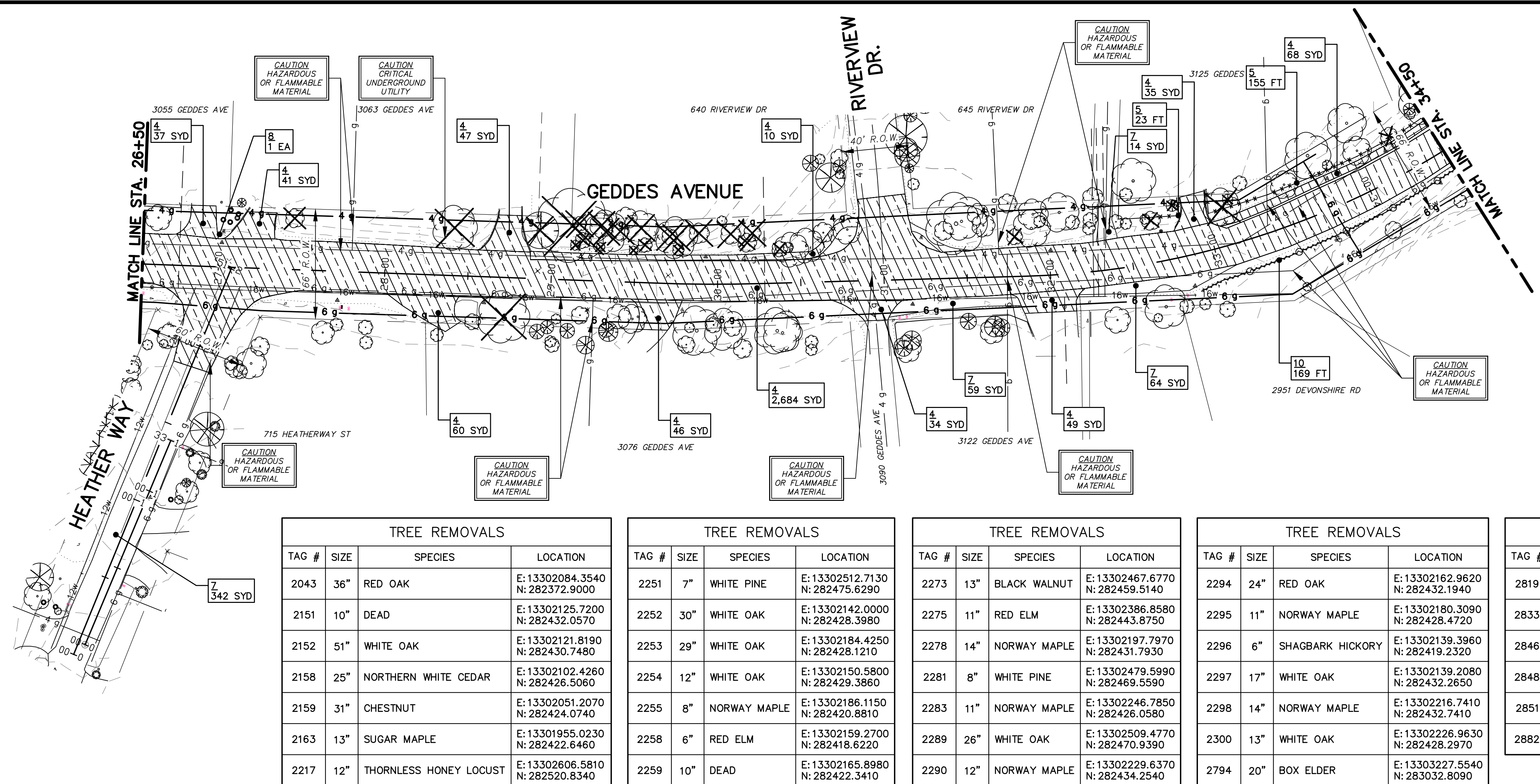
TREE REMOVALS			
TAG #	SIZE	SPECIES	LOCATION
			E: 13300846.4110 N: 282323.9680
			E: 13301011.1750 N: 282329.9900
			E: 13300632.6930 N: 282381.9270
2026	10"	BLACK WALNUT	E: 13300846.4110 N: 282323.9680
2034	8"	SUGAR MAPLE	E: 13300809.0060 N: 282322.1390
2035	19"	BLACK WALNUT	E: 13300807.2990 N: 282328.5640
2075	10"	BLACK WALNUT	E: 13301011.1750 N: 282329.9900
2150	9"	BLACK WALNUT	E: 13301385.4520 N: 282392.1340
2155	8"	REDBUD	E: 13301390.2850 N: 282396.4860
2170	9"	SLIPPERY ELM	E: 13301804.8090 N: 282411.2660

TREE REMOVALS			
TAG #	SIZE	SPECIES	LOCATION
2172	12"	RED OAK	E: 13301786.6530 N: 282410.0120
2175	11"	BLACK WALNUT	E: 13301682.4560 N: 282406.2790
2195	22"	BLACK OAK	E: 13301680.9220 N: 282411.9400
2196	25"	RED OAK	E: 13301679.2800 N: 282412.8930
2394	10"	RED OAK	E: 13301745.9210 N: 282368.6900
2395	10"	SLIPPERY ELM	E: 13301783.8120 N: 282369.1880
2397	33"	HICKORY	E: 13301761.1940 N: 282366.4620
2398	14"	SLIPPERY ELM	E: 13301782.5470 N: 282369.3310
2409	8"	SLIPPER ELM	E: 13300537.1100 N: 282393.9100
2412	8"	SLIPPER ELM	E: 13300520.3040 N: 282395.9320

TREE REMOVALS			
TAG #	SIZE	SPECIES	LOCATION
2420	22"	BLACK WALNUT	E: 13300726.2500 N: 282328.5740
2428	12"	BLACK WALNUT	E: 13300747.4020 N: 282325.5420
2429	18"	RED OAK	E: 13300740.3320 N: 282328.8180
2442	12"	BLACK WALNUT	E: 13300649.2450 N: 282333.1070
2443	17"	BLACK WALNUT	E: 13300630.6900 N: 282336.7810
2451	19"	BLACK WALNUT	E: 13300770.6440 N: 282329.4470
2460	7"	BLACK WALNUT	E: 13300787.6430 N: 282324.8870
2467	11"	SLIPPERY ELM	E: 13300632.6930 N: 282381.9270
5285	36"	WALNUT	E: 13300153.0590 N: 282462.5235
5654	16"	WALNUT	E: 13300101.7313 N: 282481.0087

TREE REMOVALS			
TAG #	SIZE	SPECIES	LOCATION
5669	12"	RED BUD	E: 13300046.9871 N: 282499.3187
5864	18"	POPLAR	E: 13301646.2179 N: 282405.4129
5865			E: 13301591.5762 N: 282401.9479

CONSTRUCTION KEY	
1	REMOVE CONCRETE CURB AND GUTTER
2	REM SIDEWALK
3	REMOVE CONCRETE DRIVE
4	REMOVE EXISTING HMA PAVEMENT - ANY THICKNESS, SAWCUT FULL DEPTH AT REMOVAL LIMITS
5	REMOVE FENCE
6	RELOCATE BY OWNER
7	REMOVE EXISTING GRAVEL - ANY THICKNESS, (INCLUDED IN WORK ITEM "MACHINE GRADING, MODIFIED, _")
8	REMOVE DRAINAGE STRUCTURE
9	REMOVE CULVERT
10	REMOVE SEWER, ANY SIZE



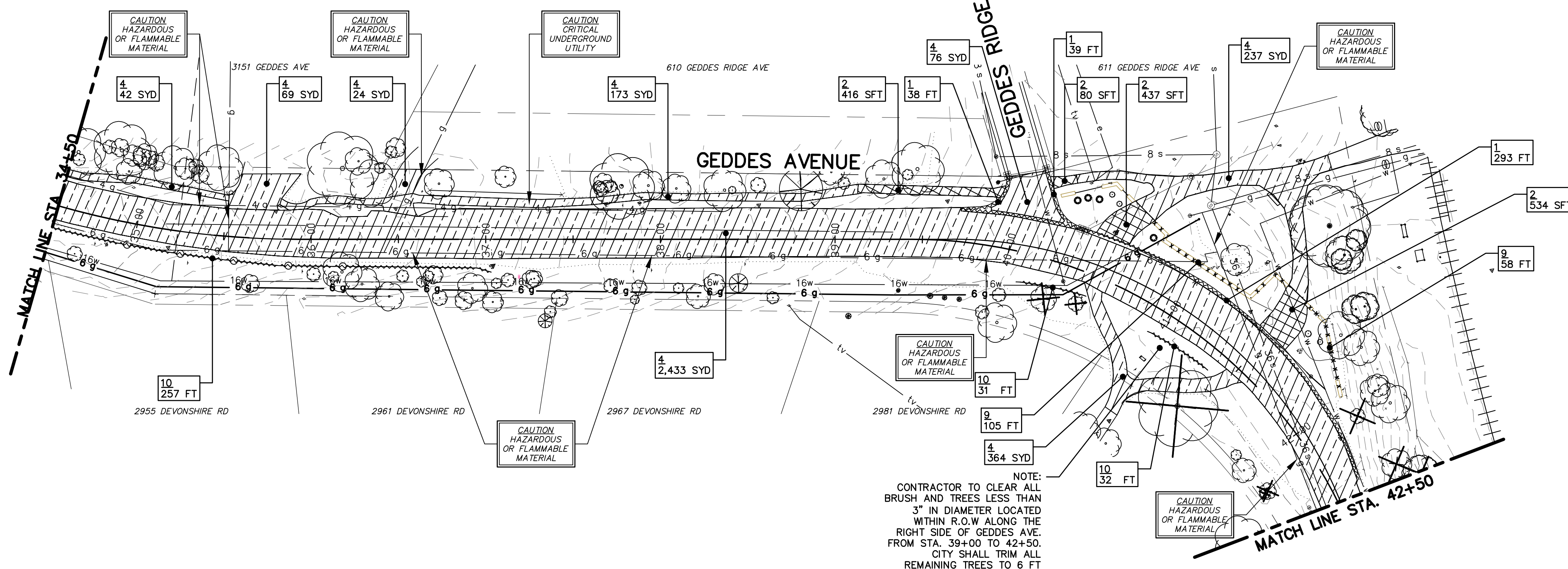
TREE REMOVALS			
TAG #	SIZE	SPECIES	LOCATION
2043	36"	RED OAK	E:13302084.3540 N:282372.9000
2151	10"	DEAD	E:13302125.7200 N:282432.0570
2152	51"	WHITE OAK	E:13302121.8190 N:282430.7480
2158	25"	NORTHERN WHITE CEDAR	E:13302102.4260 N:282426.5060
2159	31"	CHESTNUT	E:13302051.2070 N:282424.0740
2163	13"	SUGAR MAPLE	E:13301955.0230 N:282422.6460
2217	12"	THORNLESS HONEY LOCUST	E:13302606.5810 N:282520.8340

TREE REMOVALS			
TAG #	SIZE	SPECIES	LOCATION
2251	7"	WHITE PINE	E:13302512.7130 N:282475.6290
2252	30"	WHITE OAK	E:13302142.0000 N:282428.3980
2253	29"	WHITE OAK	E:13302184.4250 N:282428.1210
2254	12"	WHITE OAK	E:13302150.5800 N:282429.3860
2255	8"	NORWAY MAPLE	E:13302186.1150 N:282420.8810
2258	6"	RED ELM	E:13302159.2700 N:282418.6220
2259	10"	DEAD	E:13302165.8980 N:282422.3410

TREE REMOVALS			
TAG #	SIZE	SPECIES	LOCATION
2273	13"	BLACK WALNUT	E:13302467.6770 N:282459.5140
2275	11"	RED ELM	E:13302386.8580 N:282443.8750
2278	14"	NORWAY MAPLE	E:13302197.7970 N:282431.7930
2281	8"	WHITE PINE	E:13302479.5990 N:282469.5590
2283	11"	NORWAY MAPLE	E:13302246.7850 N:282426.0580
2289	26"	WHITE OAK	E:13302509.4770 N:282470.9390
2290	12"	NORWAY MAPLE	E:13302229.6370 N:282434.2540


TREE REMOVALS			
TAG #	SIZE	SPECIES	LOCATION
2294	24"	RED OAK	E:13302162.9620 N:282432.1940
2295	11"	NORWAY MAPLE	E:13302180.3090 N:282428.4720
2296	6"	SHAGBARK HICKORY	E:13302139.3960 N:282419.2320
2297	17"	WHITE OAK	E:13302139.2080 N:282432.2650
2298	14"	NORWAY MAPLE	E:13302216.7410 N:282432.7410
2300	13"	WHITE OAK	E:13302226.9630 N:282428.2970
2794	20"	BOX ELDER	E:13303227.5540 N:283032.8090

TREE REMOVALS			
TAG #	SIZE	SPECIES	LOCATION
2819	11"	NORWAY MAPLE	E:13303194.8620 N:282965.0850
2833	7"	RED OAK	E:13303194.8780 N:282962.7800
2846	53"	WLD CRAB APPLE	E:13303124.6170 N:282953.7300
2848	17"	BLACK WALNUT	E:13303029.2170 N:282930.5210
2851	10"	PIGNOT HICKORY	E:13303042.7220 N:282943.5170
2882	10"	BOX ELDER	E:13303192.2090 N:283031.9940



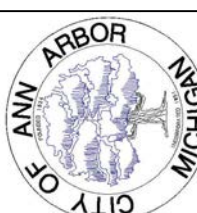
NOTE:
CONTRACTOR TO CLEAR ALL BRUSH AND TREES LESS THAN 3" IN DIAMETER LOCATED WITHIN R.O.W ALONG THE RIGHT SIDE OF GEDDES AVE. FROM STA. 39+00 TO 42+50. CITY SHALL TRIM ALL REMAINING TREES TO 6 FT UNDER CLEARANCE. COORDINATION WITH CITY AND CLEARING INCLUDED IN MACHINE GRADING, MODIFIED.

CONSTRUCTION KEY	
1	REMOVE CONCRETE CURB AND GUTTER
2	REMOVE SIDEWALK
3	REMOVE CONCRETE DRIVE
4	REMOVE EXISTING HMA PAVEMENT ANY THICKNESS, SAWCUT FULL DEPTH AT REMOVAL LIMITS (INCLUDES HMA CURB)
5	REMOVE FENCE
6	RELOCATE BY OWNER
7	REMOVE EXISTING GRAVEL - ANY THICKNESS, (INCLUDED IN WORK ITEM "MACHINE GRADING, MODIFIED")
8	
9	REMOVE DECORATIVE WALL
10	REMOVE GUARDRAIL



Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	APR. 22, 2015	ALP/ANN	CEH
	FINAL REVIEW SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH
	PRELIMINARY PLAN SUBMITTAL	MAR. 13, 2015	ALP/ANN	CEH
		JAN. 29, 2015	ALP/ANN	CEH

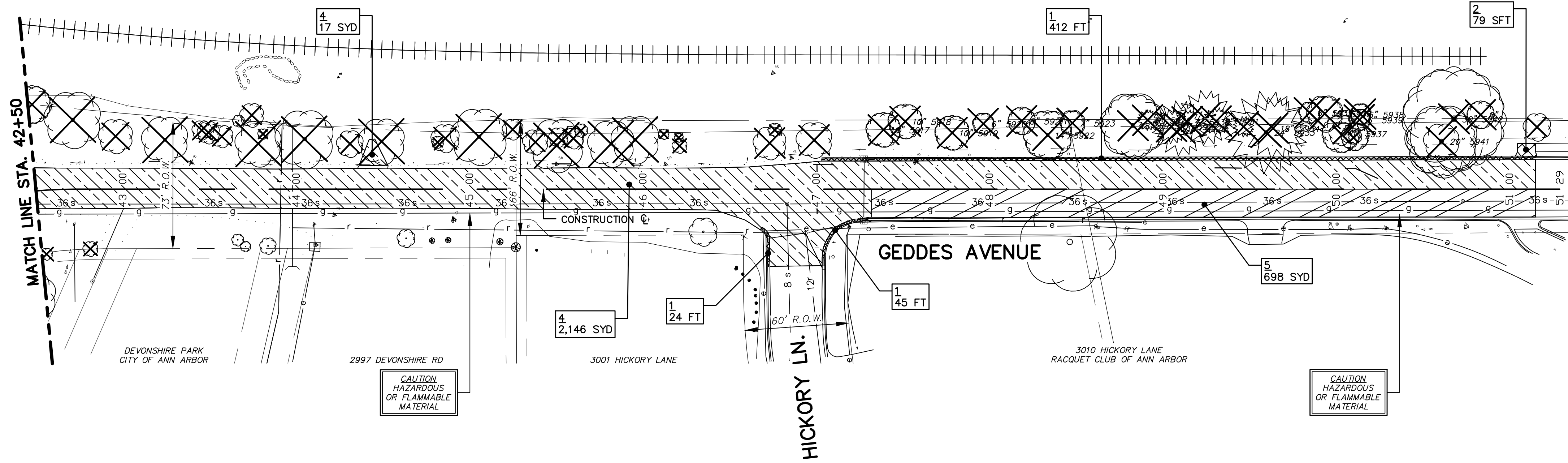


CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
www.a2gov.org

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
REMOVALS
GEDDES AVENUE STA. 26+50 TO STA. 42+50
PATH STA. 1+00 TO 6+04

SCALE PLAN: 1"=40'
DRAWING No. REM-02
SHEET No.

26 OF 187



TREE REMOVALS			
TAG #	SIZE	SPECIES	LOCATION
4	N/A		E: 13303906.3617 N: 282826.9673
2744	38"	Box Elder	E: 13303482.2690 N: 282948.4690
2747	16"	Red Elm	E: 13303360.3490 N: 282998.0970
2753	9"	White Oak	E: 13303539.6890 N: 282934.9580
2754	6"	Box Elder	E: 13303592.4960 N: 282914.7590
2755	14"	White Oak	E: 13303502.1180 N: 282946.8660
2791	39"	Box Elder	E: 13303385.4960 N: 282976.1970
2792	13"	White Oak	E: 13303330.2020 N: 282998.1490
2798	7"	Black Walnut	E: 13303363.4410 N: 282985.8900
2799	8"	Red Elm	E: 13303352.0280 N: 282997.1500
2872	38"	Red Oak	E: 13303260.5870 N: 283025.3290
2874	23"	Red Oak	E: 13303281.6210 N: 283009.1030
2875	15"	Box Elder	E: 13303333.4970 N: 282995.7180
2876	15"	Dead	E: 13303340.2800 N: 282991.3650
2877	31"	Black Locust	E: 13303359.2550 N: 282981.3530

TREE REMOVALS			
TAG #	SIZE	SPECIES	LOCATION
2878	18"	Box Elder	E: 13303409.8570 N: 282965.9910
2879	31"	Box Elder	E: 13303427.6870 N: 282962.0040
2883	31"	Box Elder	E: 13303308.2620 N: 282998.9540
2884	36"	Dead	E: 13303523.7190 N: 282930.7640
2885	22"	White Oak	E: 13303641.8320 N: 282896.6550
2886	9"	White Oak	E: 13303646.8290 N: 282903.0600
2887	24"	Dead	E: 13303666.8900 N: 282890.9250
2888	32"	Box Elder	E: 13303568.1030 N: 282920.8640
2889	10"	Box Elder	E: 13303591.5900 N: 282910.1330
2890	7"	Box Elder	E: 13303584.8190 N: 282919.1670
2891	31"	Box Elder	E: 13303554.0650 N: 282922.6570
2894	14"	Box Elder	E: 13303534.1430 N: 282931.8760
2895	13"	Box Elder	E: 13303526.1130 N: 282934.8940
2896	17"	Shagbark Hickory	E: 13303870.8365 N: 282936.1480
2897	19"	Box Elder	E: 13303463.3770 N: 282953.1590

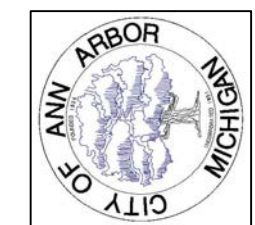
TREE REMOVALS			
TAG #	SIZE	SPECIES	LOCATION
2898	8"	Box Elder	E: 13303458.5240 N: 282952.2990
5550	8"	ELM	E: 13303965.2804 N: 282802.6966
5552	16"	LOCUST	E: 13304068.3931 N: 282778.0145
5916	11"		E: 13303240.6693 N: 283040.4974
5918	10"		E: 13303720.2946 N: 282886.1080
5919	10"		E: 13303744.3350 N: 282872.0496
5920	6"		E: 13303763.0776 N: 282871.8789
5921	8"		E: 13303784.7489 N: 282867.0186
5922	14"		E: 13303796.7154 N: 282854.9090
5923	7"		E: 13303812.3469 N: 282857.4673
5925	18"		E: 13303845.3498 N: 282846.0208
5926	6"		E: 13303854.4661 N: 282846.5893
5927	10"		E: 13303866.4295 N: 282839.0940
5928	16"		E: 13303870.8365 N: 282836.7064
5929	16"		E: 13303886.4047 N: 282838.3153

TREE REMOVALS			
TAG #	SIZE	SPECIES	LOCATION
5930	7"		E: 13303876.0889 N: 282839.0842
5931	8"		E: 13303892.1214 N: 282834.5309
5933	24"		E: 13303917.7659 N: 282820.2273
5934	18"		E: 13303922.3226 N: 282821.2724
5935	6"		E: 13303945.1125 N: 282823.8044
5936	10"		E: 13303953.3407 N: 282820.7061
5937	11"		E: 13303958.8949 N: 282806.9944
5938	6"		E: 13303972.9876 N: 282814.4331
5939	6"		E: 13303971.5241 N: 282811.5768
5941	20"		E: 13304013.2287 N: 282786.1026
5942	30"		E: 13304023.9084 N: 282796.3642
5971	10"		E: 13303706.9172 N: 282885.1242
21461	12"	Stump	E: 13303357.2360 N: 282987.5430
21675	8"		E: 13304039.2955 N: 282794.1586

CONSTRUCTION KEY	
1	REMOVE CONCRETE CURB AND GUTTER
2	REMOVE SIDEWALK
3	REMOVE CONCRETE DRIVE
4	REMOVE EXISTING HMA PAVEMENT - ANY THICKNESS, SAWCUT FULL DEPTH AT REMOVAL LIMITS
5	COLD MILLING HMA SURFACE (2")
6	RELOCATE BY OWNER
7	REMOVE EXISTING GRAVEL - ANY THICKNESS, (INCLUDED IN WORK ITEM "MACHINE GRADING, MODIFIED, ___")

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 SCALE PLAN: 1"=40' PROFILE: 1"=4'
 GEDDES AVENUE IMPROVEMENTS
 REMOVALS
 STA. 42+50 TO STA. 51+33 (P.O.E.)
 DRAWING No. REM-03
 SHEET No.

CITY OF ANN ARBOR
 PUBLIC SERVICES
 301 EAST HURON STREET
 ANN ARBOR, MI 48107-8647
 www.ci.ann-arbor.mi.us



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
1	ISSUED FOR BIDS	APR. 22, 2015	ALP/ANN	CEH
2	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH
3	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/ANN	CEH
4	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/ANN	CEH





Know what's below. Call before you dig.

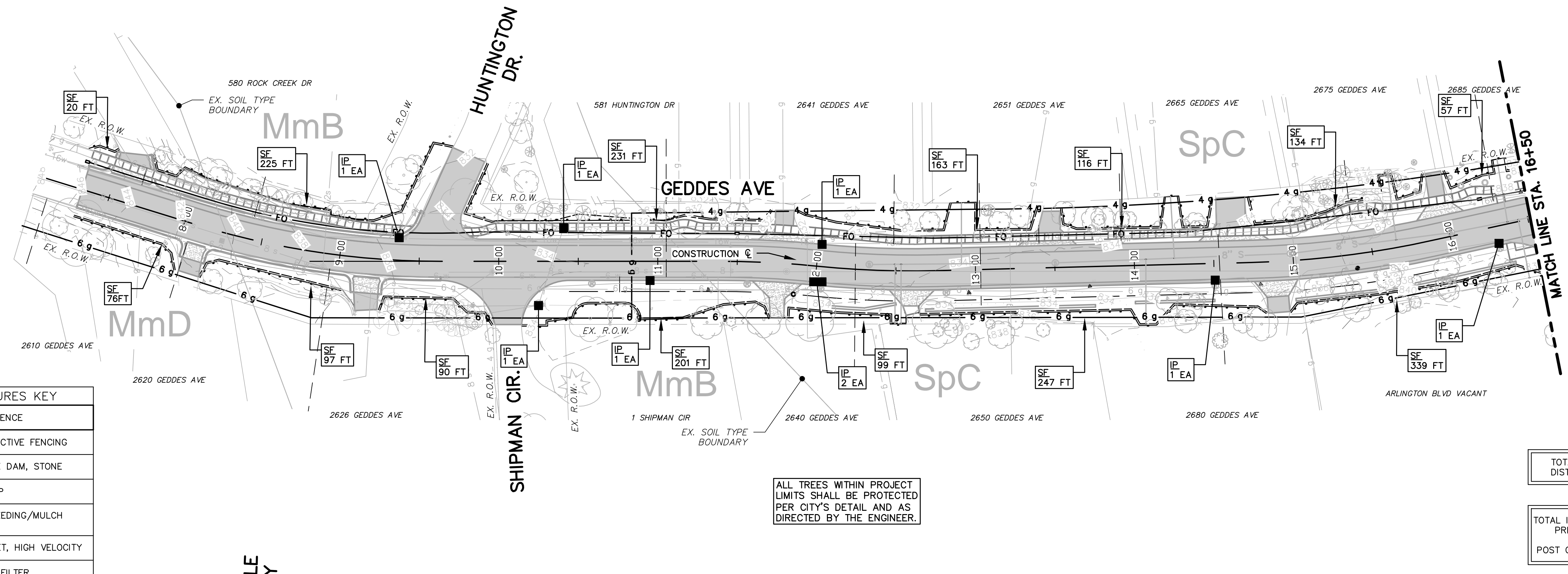
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APR. 22, 2015	ISSUED FOR BIDS		ALP/ANN	CEH
MAR. 26, 2015	FINAL PLAN SUBMITTAL		ALP/ANN	CEH
MAR. 13, 2015	FINAL REVIEW SUBMITTAL		ALP/ANN	CEH
JAN. 29, 2015	PRELIMINARY PLAN SUBMITTAL		ALP/ANN	CEH

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
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PROJECT MANAGEMENT - CITY OF ANN ARBOR
PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
SOIL EROSION AND SEDIMENTATION CONTROL PLAN
STA. 7+32 (P.O.B.) TO STA. 26+50

SCALE PLAN: 1"=40'
DRAWING No. SESC-01
ONSITE SOIL TYPES PER THE USDA SOIL SURVEY OF WASHTENAW COUNTY, MICHIGAN:
• BnB - BOYER LOAMY SAND, 1 TO 6 PERCENT SLOPES
• MmB - MIAMI LOAM, 2 TO 6 PERCENT SLOPES
• MmD - MIAMI LOAM, 12 TO 18 PERCENT SLOPES
• SpC - SPINKS LOAMY SAND, 6 TO 12 PERCENT SLOPES
• Fd - FILL LAND

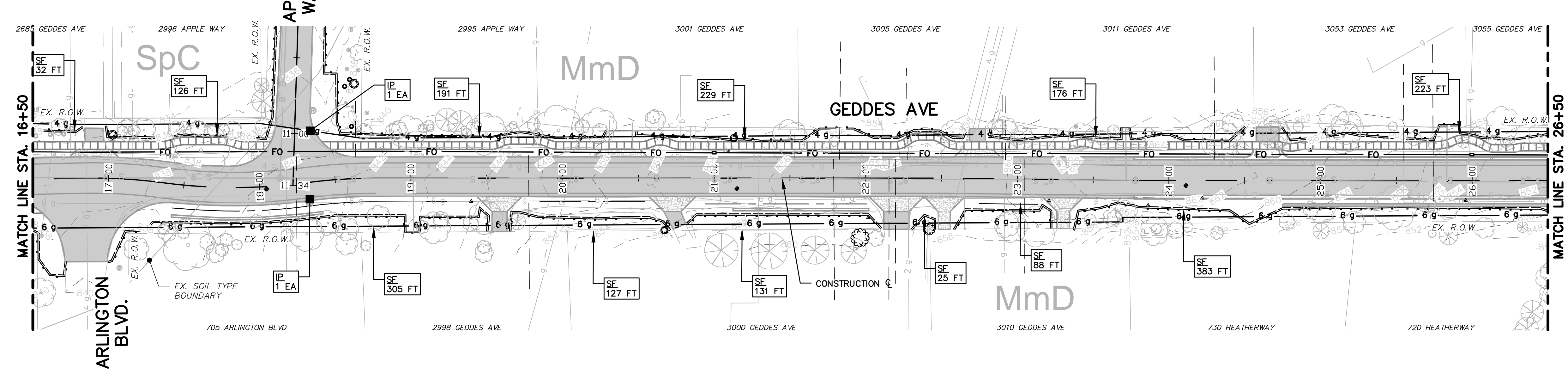


SF	INSTALL SILT FENCE
PF	INSTALL PROTECTIVE FENCING
CD	INSTALL CHECK DAM, STONE
RR	INSTALL RIPRAP
TM	TEMPORARY SEEDING/MULCH BLANKET
MG	MULCH BLANKET, HIGH VELOCITY
IP	INSTALL INLET FILTER

ALL TREES WITHIN PROJECT LIMITS SHALL BE PROTECTED PER CITY'S DETAIL AND AS DIRECTED BY THE ENGINEER.

TOTAL AREA OF PROPOSED DISTURBANCE: 7.08 ACRES

TOTAL IMPERVIOUS PROJECT AREA:
PRIOR TO CONSTRUCTION: 3.00 ACRES
POST CONSTRUCTION: 3.73 ACRES



GENERAL SESC NOTES:
NOTIFY THE CITY OF ANN ARBOR SOIL EROSION CONTROL OFFICE 48 HOURS PRIOR TO BEGINNING WORK ON THE PROJECT.
PHONE: 734-794-6265

- THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN THE SOIL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER AT ALL TIMES DURING CONSTRUCTION AND THROUGHOUT THE WINTER. ANY MODIFICATIONS OR ADDITIONS TO THE SOIL EROSION CONTROL MEASURES DUE TO CONSTRUCTION OR CHANGED CONDITIONS SHALL BE AS DIRECTED AND APPROVED BY THE ENGINEER.
- ALL SOIL EROSION AND SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE PERMIT REQUIREMENTS OF THE CITY OF ANN ARBOR, CITY ORDINANCE CHAPTER 63, CITY OF ANN ARBOR STANDARDS DIVISION VII, THE LAWS OF THE STATE OF MICHIGAN AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- DAILY, OR AFTER ANY STORM EVENT, INSPECTIONS OF EROSION CONTROL MEASURES SHALL BE MADE BY THE CONTRACTOR. PERIODIC INSPECTIONS MAY BE MADE BY THE ENGINEER TO DETERMINE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES. ANY NECESSARY CORRECTIONS SHALL BE MADE WITHOUT DELAY, AND WITHOUT ADDITIONAL COST TO THE CITY OF ANN ARBOR.
- EROSION AND SEDIMENTATION FROM WORK ON THE SITE SHALL BE CONTAINED ON THE SITE AND NOT BE ALLOWED TO COLLECT ON ANY OFF-SITE AREAS, ROADWAY OR WATERWAYS.

- ALL MUD/DIRT TRACKED ONTO ROADWAYS FROM THE SITE DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR. IF SO ORDERED, THE CONTRACTOR SHALL PROVIDE AND OPERATE A VACUUM-TYPE STREET SWEEPER, AT NO ADDITIONAL COST TO THE CITY OF ANN ARBOR, WITHIN FOUR (4) HOURS OF BEING SO ORDERED.
- RESTORATION OF ALL DISTURBED AREAS, INCLUDING PLACEMENT OF TOPSOIL, SEED, FERTILIZER AND MULCH AND/OR SOD SHALL BE PERFORMED WITHIN FIVE (5) DAYS OF THE COMPLETION OF FINAL GRADE.
- CONSTRUCTION OPERATIONS SHALL BE SCHEDULED AND PERFORMED SO THAT PREVENTATIVE SOIL EROSION CONTROL MEASURES ARE IN PLACE PRIOR TO EXCAVATION IN CRITICAL AREAS AND TEMPORARY STABILIZATION MEASURES ARE IN PLACE IMMEDIATELY FOLLOWING BACKFILLING OPERATIONS.
- SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT SITUATIONS THAT PROMOTE EROSION.
- PROPER DUST CONTROL SHALL BE MAINTAINED DURING CONSTRUCTION BY USE OF WATER TRUCKS AND/OR DUST PALLIATIVE AS REQUIRED AND/OR DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND REMOVAL OF

SOME MEASURES UPON AUTHORIZED COMPLETION OF THE PROJECT. FINAL COMPLETION OF THE PROJECT WILL NOT BE AUTHORIZED UNTIL ALL SITE WORK AND UTILITY CONSTRUCTION IS COMPLETE AND ALL SOILS ARE STABILIZED.

- THE CONTRACTOR SHALL NOT GRADE INTO ADJACENT PROPERTIES. SILT AND PROTECTIVE FENCING SHALL BE INSTALLED AND MAINTAINED TO PREVENT GRADING, EROSION AND SEDIMENTATION ONTO ADJACENT PROPERTIES.
- TREE PROTECTION FENCING MUST REMAIN INTACT UNTIL RESTORATION OF THE SITE IS COMPLETE.

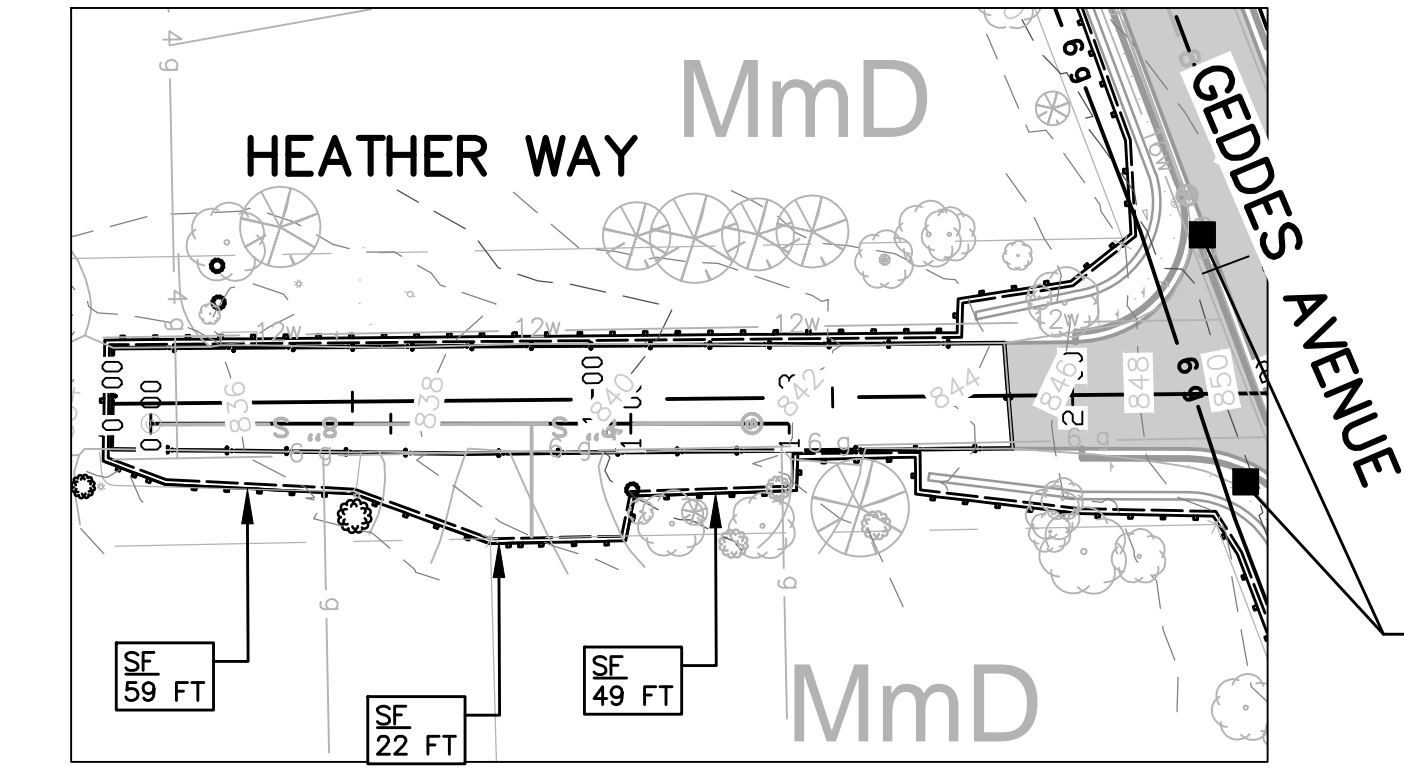
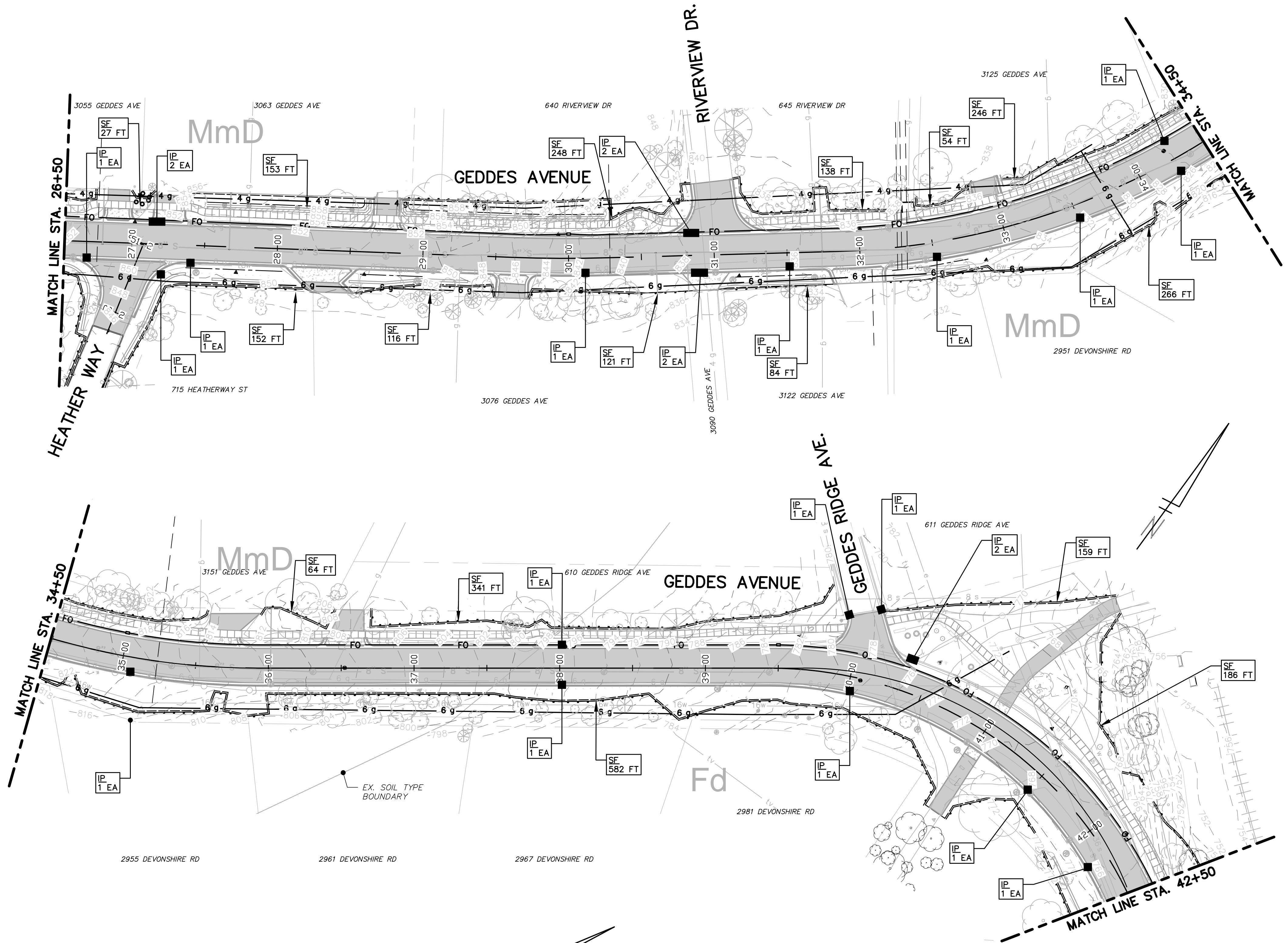
SEQUENCE OF EROSION CONTROL MEASURES:
THE CONTRACTOR IS TO SUBMIT TO THE ENGINEER, A SEQUENCE OF CONSTRUCTION WITH RESPECT TO THE SOIL EROSION CONTROL MEASURES FOR REVIEW, COMMENT AND APPROVAL. THIS SCHEDULE IS TO INCLUDE INSPECTION AND REPAIR OF ALL TEMPORARY EROSION CONTROL MEASURES DAILY AND WITHIN 24 HOURS OF A STORM EVENT

- TEMPORARY SEEDING:**
- SEED IN ACCORDANCE WITH PROJECT DRAWINGS AND SPECIFICATIONS.
 - ANY DISTURBED AREA NOT PAVED, SEEDED, MULCHED, SODDED OR BUILT UPON BY NOVEMBER 15TH IS TO BE TEMPORARILY STABILIZED PER SPECIFICATIONS.

SAMPLE SOIL EROSION AND SEDIMENTATION CONTROL INSTALLATION MINIMUM REQUIREMENTS:

- FOR INFORMATION ONLY, THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THEIR OWN DETAILED CONSTRUCTION SEQUENCE AND SCHEDULE TO THE ENGINEER FOR REVIEW, COMMENT AND APPROVAL.
- INSTALL SILT FENCE, TREE PROTECTION FENCING AND INLET FILTERS ON EXISTING DRAINAGE FEATURES PRIOR TO ANY CLEARING OR EARTH MOVING OPERATIONS.
 - STRIP AND STOCKPILE TOPSOIL. STABILIZE STOCKPILE AS REQUIRED.
 - INSTALL SANITARY AND STORM SEWERS AND OTHER ENCLOSED DRAINAGE FEATURES. NEW INLET FILTERS SHALL BE INSTALLED IMMEDIATELY FOLLOWING THE INSTALLATION OF NEW DRAINAGE INLETS.
 - COMPLETE RETAINING WALL CONSTRUCTION IN ACCORDANCE WITH CONSTRUCTION SEQUENCE CONTAINED IN THE SPECIAL PROVISION: "MAINTAINING TRAFFIC AND CONSTRUCTION METHOD AND SEQUENCING" CONTAINED IN THE CONTRACT PROPOSAL.
 - PERFORM GRADING OPERATIONS AND CONSTRUCT PAVEMENTS (MAINLINE, SIDEWALK, PATHWAY, DRIVE, ETC.)
 - COMPLETE ALL FINE GRADING.

- TEMPORARY SEED AND INSTALL EROSION CONTROL BLANKET IN ALL DISTURBED AREAS.
- REFER TO THE LANDSCAPE PLANTING AND TREE PLANTING PLANS FOR PERMANENT SITE STABILIZATION.
- CLEAN OUT STORM SEWER SYSTEMS.
- REMOVE ALL TEMPORARY SOIL EROSION CONTROL MEASURES UPON FINAL INSPECTION AND APPROVAL BY THE ENGINEER.
- REMEDY ANY NOTED DEFECTS TO THE SATISFACTION OF THE CITY OF ANN ARBOR'S SOIL EROSION AND SEDIMENTATION CONTROL INSPECTOR.



SEE ABOVE FOR INFORMATION ON GEDDES AVE.

SESC MEASURES KEY

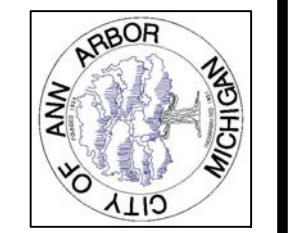
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PF	INSTALL PROTECTIVE FENCING
CD	INSTALL CHECK DAM, STONE
RR	INSTALL RIPRAP
TM	TEMPORARY SEEDING/MULCH BLANKET
MG	MULCH BLANKET, HIGH VELOCITY
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ALL TREES WITHIN PROJECT LIMITS SHALL BE PROTECTED PER CITY'S DETAIL AND AS DIRECTED BY THE ENGINEER.



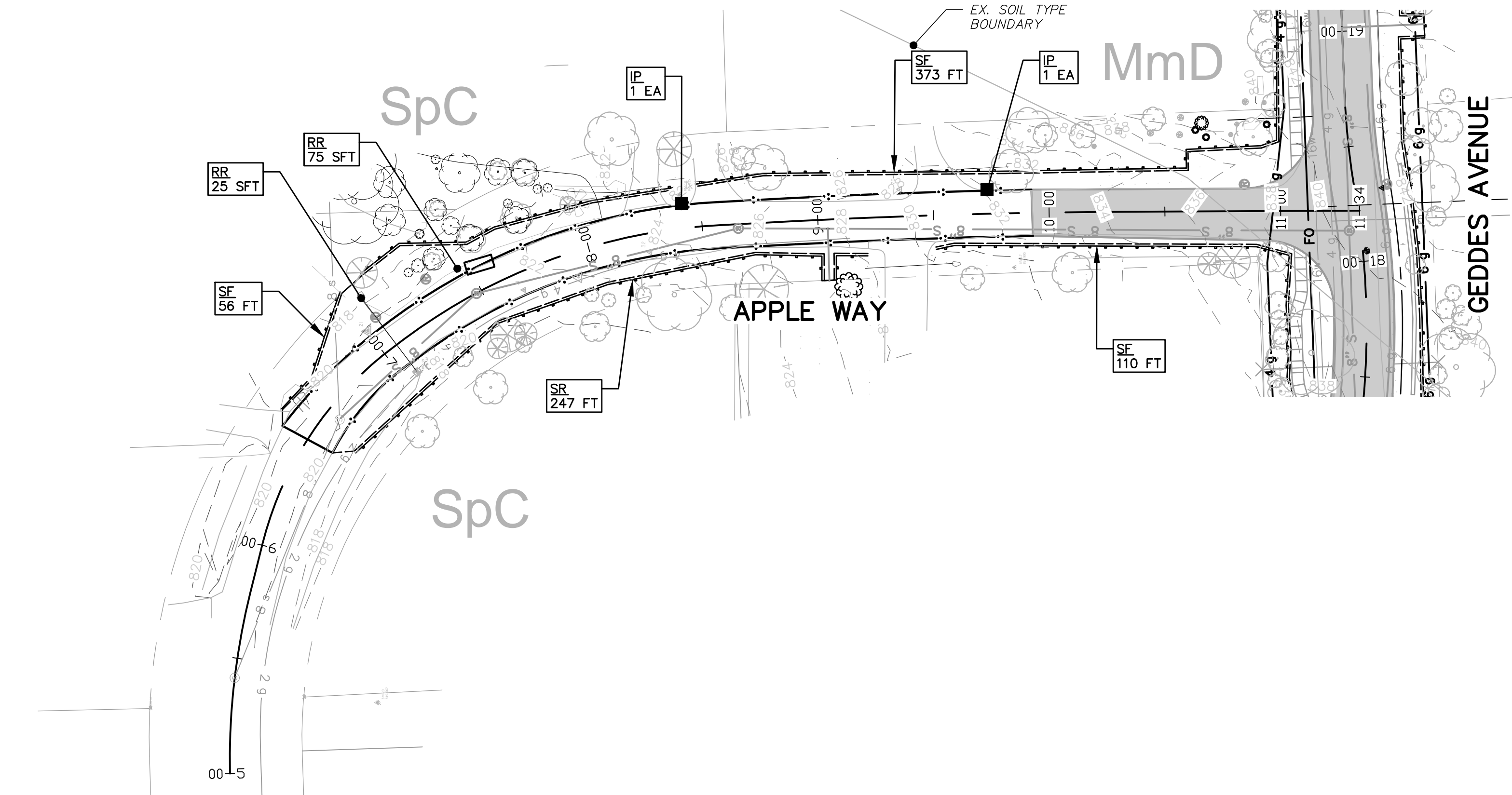
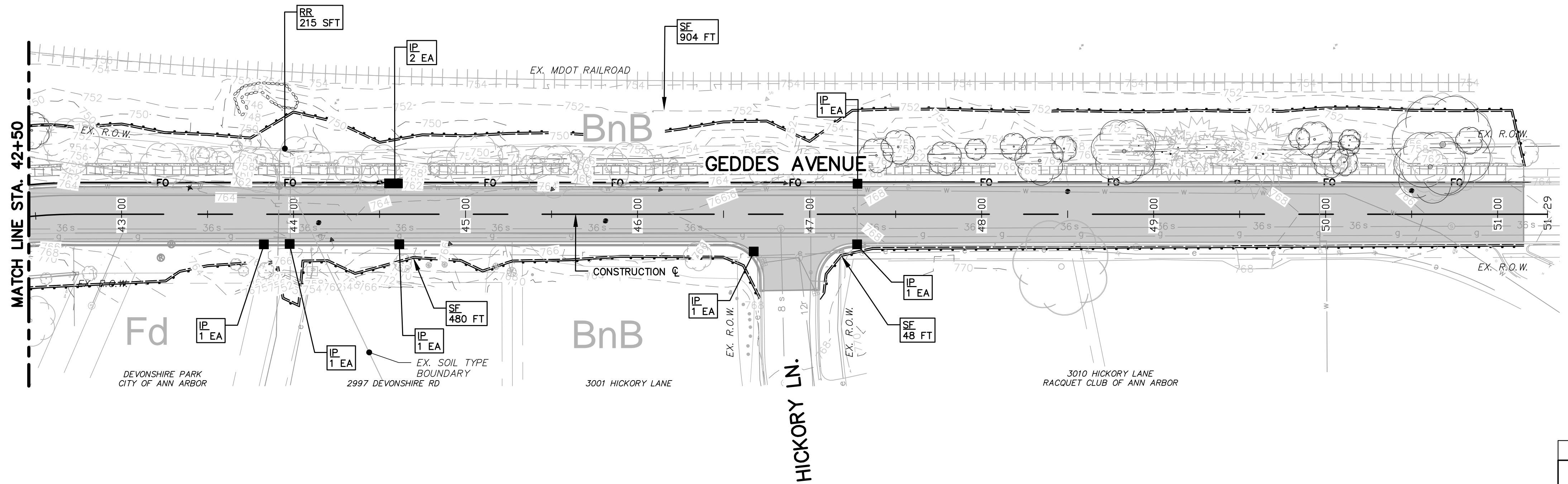
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CITY OF ANN ARBOR
PUBLIC SERVICES
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
SOIL EROSION AND SEDIMENTATION CONTROL PLAN
GEDDES AVENUE STA. 26+50 TO STA. 42+50
HEATHER WAY STA. 0+00 TO 1+53 (P.O.E.)

SCALE PLAN: 1"=40'
DRAWING No. SESC-02
SHEET No.



ALL TREES WITHIN PROJECT LIMITS SHALL BE PROTECTED PER CITY'S DETAIL AND AS DIRECTED BY THE ENGINEER.

SESC MEASURES KEY	
SF	INSTALL SILT FENCE
PF	INSTALL PROTECTIVE FENCING
CD	INSTALL CHECK DAM, STONE
RR	INSTALL RIPRAP
TM	TEMPORARY SEEDING/MULCH BLANKET
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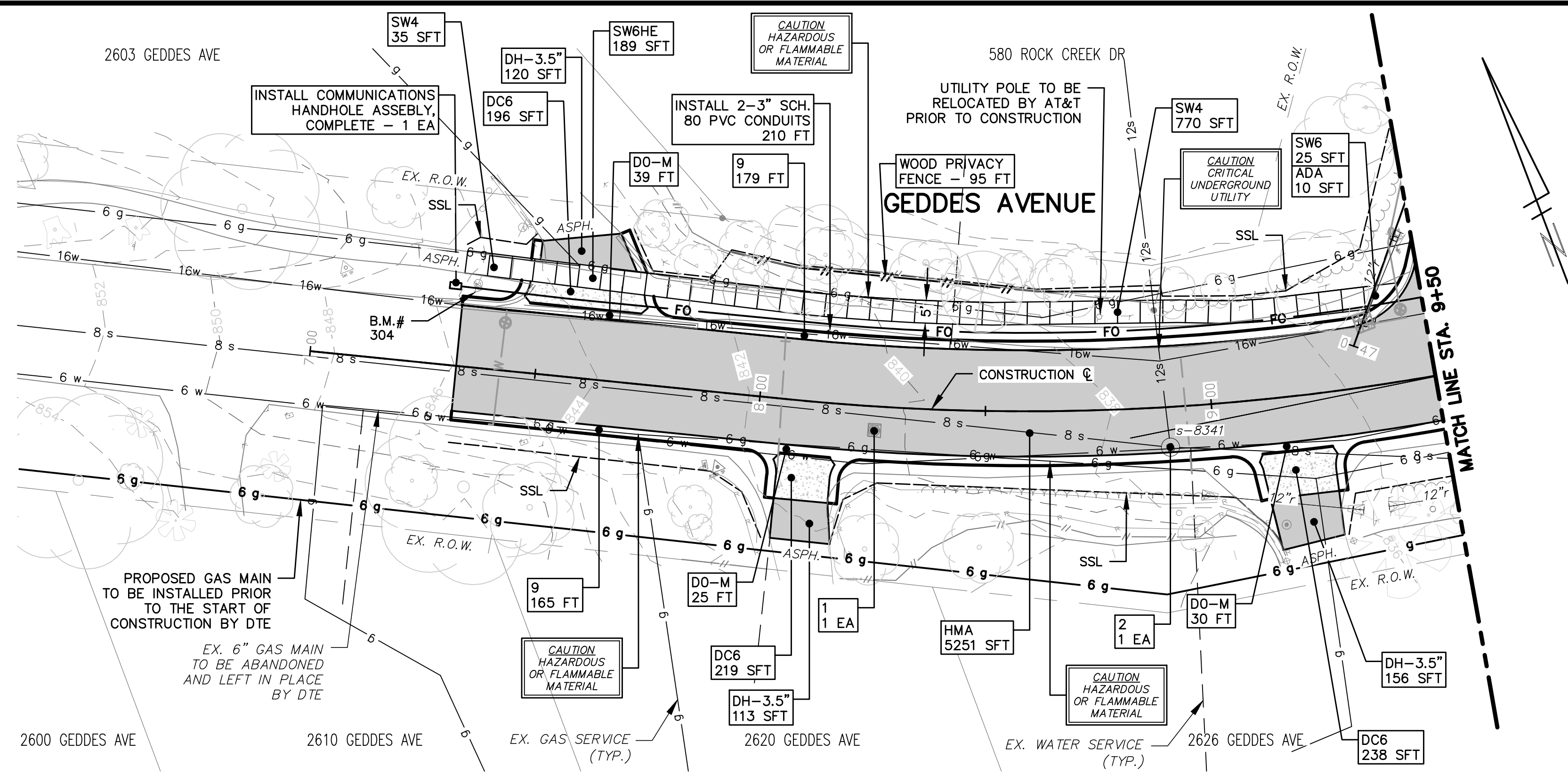
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
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	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH
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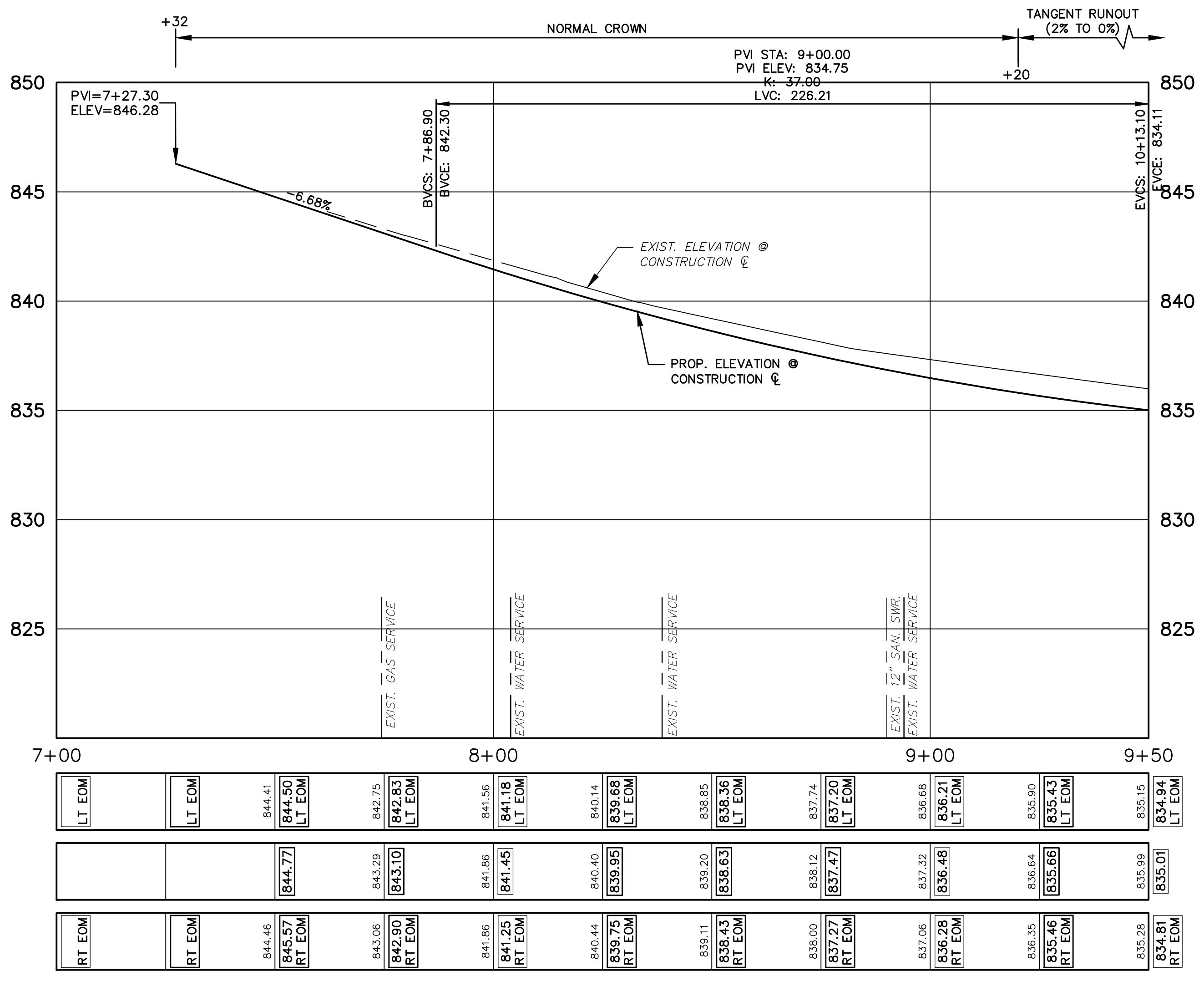


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
SOIL EROSION AND SEDIMENTATION CONTROL PLAN
GEDDES AVENUE STA. 42+50 TO STA. 51+15 (P.O.E.)
APPLE WAY STA. 5+00 TO 11+34 (P.O.E.)

SCALE PLAN: 1"=40'
PROFILE: 1"=4'
DRAWING No. SESC-03




- CONSTRUCTION NOTES:**
- SEE UTILITY SHEETS FOR STORM SEWER, SANITARY SEWER, INFILTRATION BEDS AND WATER MAIN STRUCTURE AND PIPE REMOVALS AND PLACEMENTS.
 - FOR SIDEWALK AND PAVEMENT REMOVALS, SAWCUT EXISTING MATERIAL FULL-DEPTH AT REMOVAL LIMITS AS DIRECTED BY THE ENGINEER. PAYMENT FOR SAWCUT INCLUDED IN "MACHINE GRADING, MODIFIED." AS DETAILED IN THE PLANS AND SPECIFICATIONS.
 - PLACE SIDEWALK AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH PROJECT DETAIL SHEETS, GRADING DETAIL SHEETS, AND PROJECT SPECIFICATIONS. SEE PROJECT DETAIL SHEETS FOR SIDEWALK JOINT LAYOUT AND OTHER RELEVANT INFORMATION.
 - ALL TREES WITHIN PROJECT LIMITS SHALL BE PROTECTED PER CITY OF ANN ARBOR'S DETAIL AND AS DIRECTED BY THE ENGINEER.
 - INSTALL COMMUNICATIONS HANDHOLE ASSEMBLY AND CONDUITS AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE PROJECT DETAILS AND SPECIFICATIONS.
 - INSTALL WOOD PRIVACY FENCE AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE PROJECT PLAN, DETAILS AND SPECIFICATIONS.




CONSTRUCTION KEY	
HMA	PLACE HMA AS SPECIFIED IN THE APPLICATION TABLE
CG	PLACE BARRIER CURB & GUTTER PER DETAIL.
DO-L	PLACE DRIVEWAY OPENING, CONC, DETAIL L, P-NC
DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, P-NC
DC6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, HIGH EARLY, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL.
DH-	PLACE HMA DRIVE APPROACH AT THE THICKNESS AS SHOWN ON THE PLANS. IF THICKNESS > 3" PLACE IN LIFTS AS DIRECTED BY THE ENGINEER.
SW4	PLACE 4 INCH CONCRETE SIDEWALK AND COMPACT 6 INCH SUBBASE, CIP, CLASS II, GRANULAR MATERIAL.
SW6	PLACE 6 INCH CONCRETE SIDEWALK OR RAMP AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL.
SW6HE	PLACE 6 INCH CONCRETE - HIGH EARLY SIDEWALK AND COMPACT 6 INCH SUBBASE, CIP, CLASS II, GRANULAR MATERIAL.
ADA	PLACE ADA DETECTABLE WARNING, CAST IN PLACE OVER 6 INCH CONCRETE RAMP
ABO	ADJUST BY OTHERS
1	ADJUST GATE VALVE BOX MONUMENT BOX, OR GAS BOX.
2	REMOVE AND REPLACE MDOT TYPE B CASTING, MODIFIED.
3	REMOVE AND REPLACE MDOT TYPE K CASTING, MODIFIED.
4	REMOVE STRUCTURE AND REPLACE WITH 2' DIA. DRAINAGE STRUCTURE.
5	POINT STRUCTURE.
6	ADJUST MDOT TYPE B CASTING TO FINISH GRADE.
7	ADJUST MDOT TYPE K CASTING TO FINISH GRADE.
8-	ADDITIONAL DEPTH DRAINAGE STRUCTURE ADJUST /REPAIR AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
9	PLACE MOUNTABLE CURB PER DETAIL.

BENCH MARK INFORMATION		
B.M.#	DESCRIPTION	ELEV.
304		846.62



Know what's below.
Call before you dig.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	APR. 22, 2015	ALP/AMN	CEH
	FINAL REVIEW SUBMITTAL	MAR. 26, 2015	ALP/AMN	CEH
	PRELIMINARY PLAN SUBMITTAL	MAR. 13, 2015	ALP/AMN	CEH
		JAN. 29, 2015	ALP/AMN	CEH



CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
www.annarbor.org

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

GEDDES AVENUE IMPROVEMENTS

ROAD PLAN AND PROFILE

STA. 7+32 (P.O.B.) TO STA. 9+50

SCALE PLAN: 1"=40' PROFILE: 1"=4'

DRAWING No. RD-01

SHEET No.



ISSUED FOR BIDS	APR. 22, 2015	ALP/MIN	CEH	CHECKED
FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/MIN	CEH	DATE
FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/MIN	CEH	
PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/MIN	CEH	
REV.	DESCRIPTION	DATE		



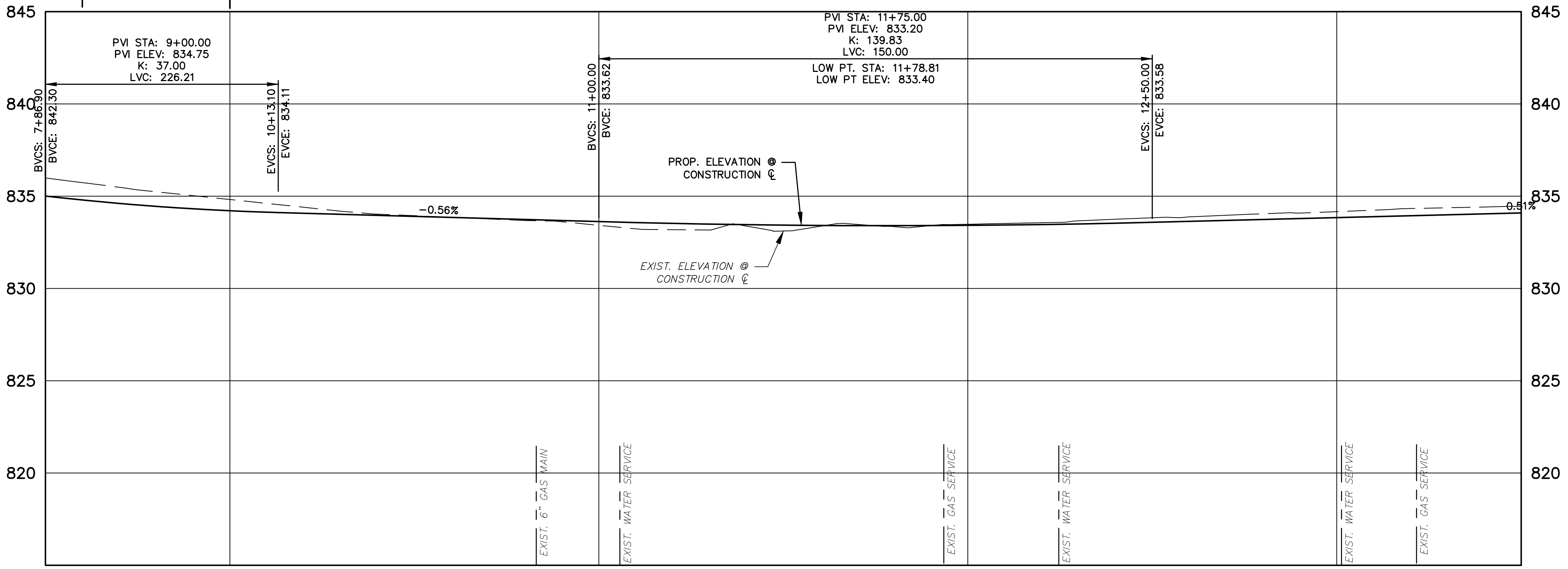
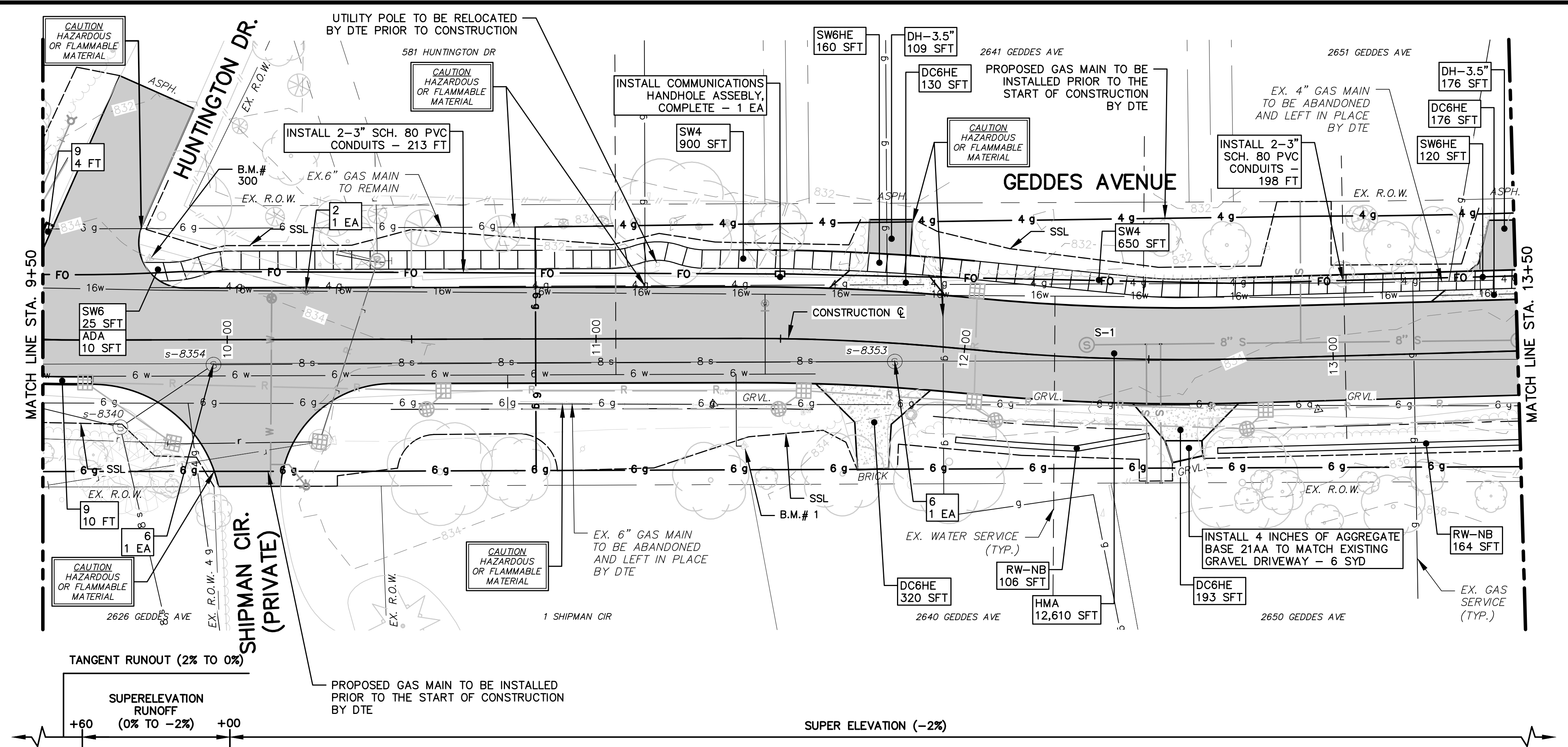
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 GEDES AVENUE IMPROVEMENTS
 ROAD PLAN AND PROFILE
 STA. 9+50 TO STA. 13+50

SCALE PLAN: 1"=20'
 PROFILE: 1"=4'
 DRAWING No. RD-02
 SHEET No. 32 OF 187

- CONSTRUCTION NOTES:**
- SEE UTILITY SHEETS FOR STORM SEWER, SANITARY SEWER, INFILTRATION BEDS AND WATER MAIN STRUCTURE AND PIPE REMOVALS AND PLACEMENTS.
 - FOR SIDEWALK AND PAVEMENT REMOVALS, SAWCUT EXISTING MATERIAL FULL-DEPTH AT REMOVAL LIMITS AS DIRECTED BY THE ENGINEER. PAYMENT FOR SAWCUT INCLUDED IN "MACHINE GRADING, MODIFIED." AS DETAILED IN THE PLANS AND SPECIFICATIONS.
 - PLACE SIDEWALK AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH PROJECT DETAIL SHEETS, GRADING DETAIL SHEETS, AND PROJECT SPECIFICATIONS. SEE PROJECT DETAIL SHEETS FOR SIDEWALK JOINT LAYOUT AND OTHER RELEVANT INFORMATION.
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 - INSTALL COMMUNICATIONS HANDHOLE ASSEMBLY AND CONDUITS AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE PROJECT DETAILS AND SPECIFICATIONS.
 - INSTALL NATURAL BOULDER RETAINING WALLS AS DIRECTED BY THE ENGINEER AS DETAILED IN THE PLANS AND SPECIFICATIONS.

CONSTRUCTION KEY	
HMA	PLACE HMA AS SPECIFIED IN THE APPLICATION TABLE
CG	PLACE CONCRETE BARRIER CURB & GUTTER, P1, PER DETAIL.
DO-L	PLACE DRIVEWAY OPENING, CONC, DETAIL L, HIGH EARLY.
DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, HIGH EARLY.
DC6	PLACE CONC. DRIVE APPROACH, NON-REINFORCED, HIGH EARLY, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL.
DH--	PLACE HMA DRIVE APPROACH AT THE THICKNESS AS SHOWN ON THE PLANS. IF THICKNESS > 3" PLACE IN LIFTS AS DIRECTED BY THE ENGINEER.
SW4	PLACE 4 INCH CONCRETE SIDEWALK OR RAMP AND COMPACT 6 INCH SUBBASE, CIP, CLASS II, GRANULAR MATERIAL.
SW6	PLACE 6 INCH CONCRETE SIDEWALK OR RAMP AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL.
SW6HE	PLACE 6 INCH CONCRETE - HIGH EARLY SIDEWALK AND COMPACT 6 INCH SUBBASE, CIP, CLASS II, GRANULAR MATERIAL.
ADA	PLACE ADA DETECTABLE WARNING, CAST IN PLACE OVER 6 INCH CONCRETE RAMP
ABO	ADJUST BY OTHERS
RW-NB	INSTALL NATURAL BOULDER RETAINING WALL PER THE DETAIL.
1	ADJUST GATE VALVE BOX MONUMENT BOX, OR GAS BOX.
2	REMOVE AND REPLACE MDOT TYPE B CASTING, MODIFIED.
3	REMOVE AND REPLACE MDOT TYPE K CASTING, MODIFIED
4	REMOVE STRUCTURE AND REPLACE WITH 2' DIA. DRAINAGE STRUCTURE.
5	POINT STRUCTURE.
6	ADJUST MDOT TYPE B CASTING TO FINISH GRADE.
7	ADJUST MDOT TYPE K CASTING TO FINISH GRADE.
8--	ADDITIONAL DEPTH DRAINAGE STRUCTURE ADJUST /REPAIR AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
9	PLACE MOUNTABLE CONCRETE CURB, P1 PER DETAIL.

BENCH MARK INFORMATION		
B.M.#	DESCRIPTION	ELEV.
1	STEAMER VALVE ON HYDRANT ON THE S. SIDE OF GEDES, E'LY OF SHIPMAN CIRCLE	835.203
300		834.530



835.15	834.94	834.55	834.25	833.79	833.15	832.98	832.88	832.85	832.65	832.61	833.00	833.28	833.47	833.72	833.76
835.01	834.97	834.82	834.21	834.29	833.94	833.73	833.42	833.39	833.48	833.58	833.83	834.01	834.16	834.35	834.44
834.81	834.28	833.97	834.12	833.81	833.67	833.52	833.57	833.50	833.69	833.74	834.06	834.24	834.27	834.47	834.66
834.94	834.49	834.33	834.05	833.90	833.78	833.62	833.57	833.50	833.68	833.70	833.86	833.99	834.12	834.24	834.44
834.94	834.49	834.33	834.05	833.90	833.78	833.62	833.57	833.50	833.68	833.70	833.86	833.99	834.12	834.24	834.44
834.94	834.49	834.33	834.05	833.90	833.78	833.62	833.57	833.50	833.68	833.70	833.86	833.99	834.12	834.24	834.44



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
ISSUED FOR BIDS	APR. 22, 2015	ALP/AN	CEH	
FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/AN	CEH	
FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/AN	CEH	
PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/AN	CEH	



PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 GEDES AVENUE IMPROVEMENTS
 ROAD PLAN AND PROFILE
 STA. 13+50 TO STA. 17+50
 SCALE PLAN: 1"=20'
 PROFILE: 1"=4'
 DRAWING No. RD-03
 SHEET No. 33 OF 187

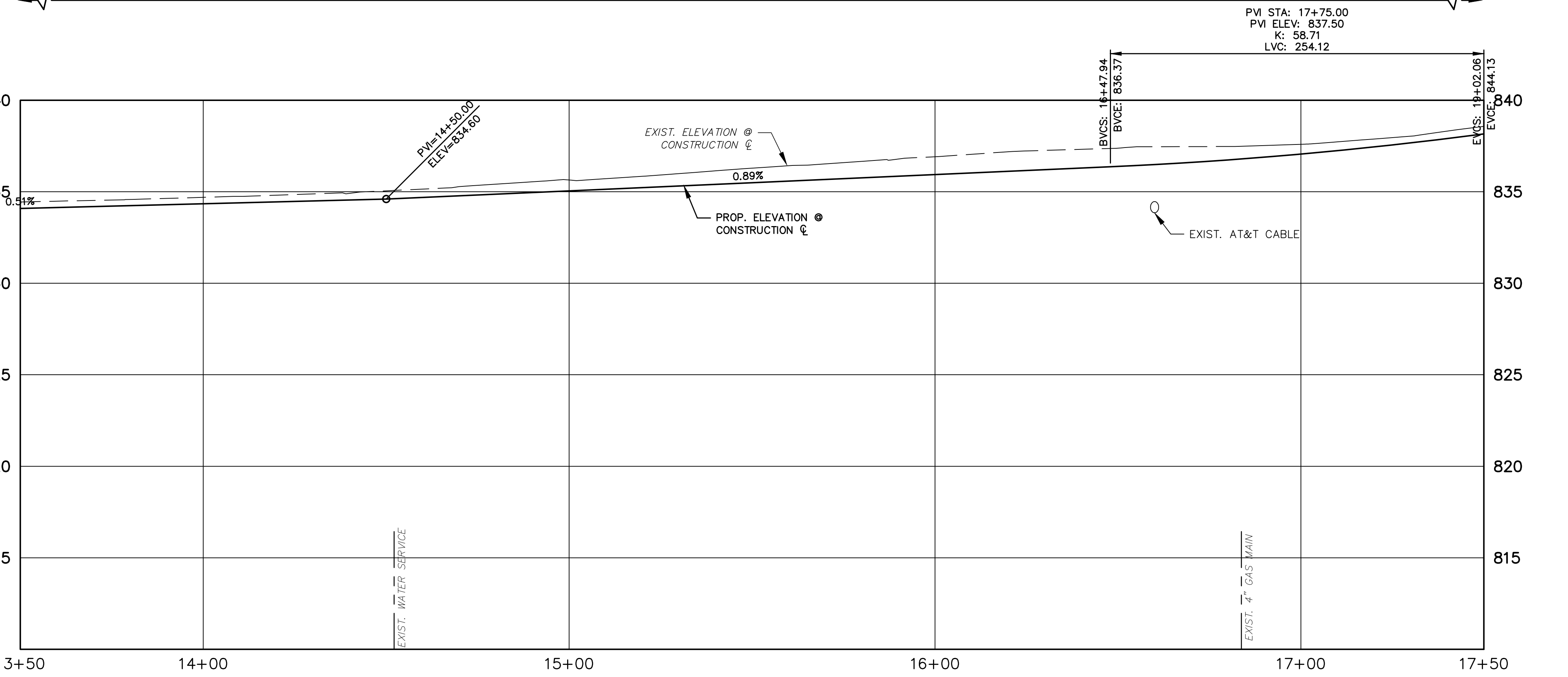
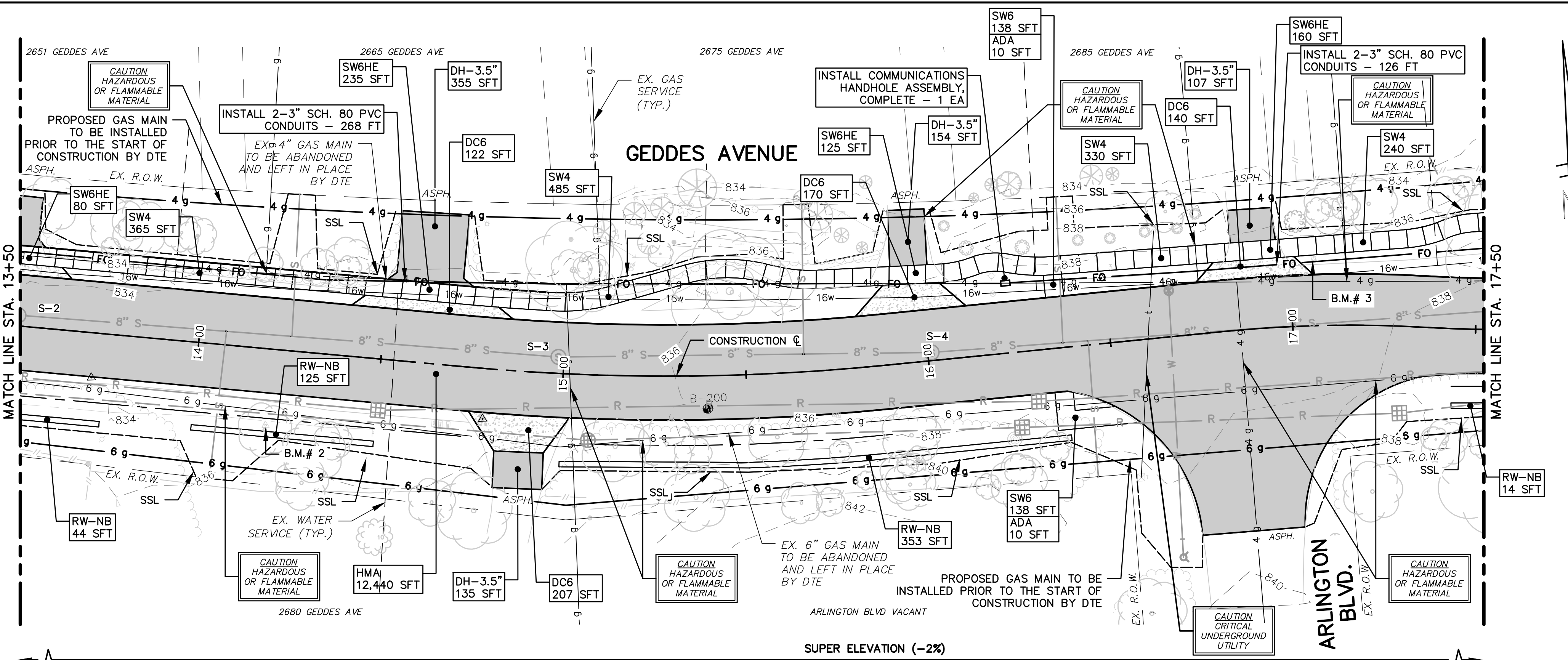
- CONSTRUCTION NOTES:**
- SEE UTILITY SHEETS FOR STORM SEWER, SANITARY SEWER, INFILTRATION BEDS AND WATER MAIN STRUCTURE AND PIPE REMOVALS AND PLACEMENTS.
 - FOR SIDEWALK AND PAVEMENT REMOVALS, SAWCUT EXISTING MATERIAL FULL-DEPTH AT REMOVAL LIMITS AS DIRECTED BY THE ENGINEER. PAYMENT FOR SAWCUT INCLUDED IN "MACHINE GRADING, MODIFIED." AS DETAILED IN THE PLANS AND SPECIFICATIONS.
 - PLACE SIDEWALK AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH PROJECT DETAIL SHEETS, GRADING DETAIL SHEETS, AND PROJECT SPECIFICATIONS. SEE PROJECT DETAIL SHEETS FOR SIDEWALK JOINT LAYOUT AND OTHER RELEVANT INFORMATION.
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 - INSTALL COMMUNICATIONS HANDHOLE ASSEMBLY AND CONDUITS AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE PROJECT DETAILS AND SPECIFICATIONS.
 - INSTALL NATURAL BOULDER RETAINING WALLS AS DIRECTED BY THE ENGINEER AS DETAILED IN THE PLANS AND SPECIFICATIONS.

CONSTRUCTION KEY

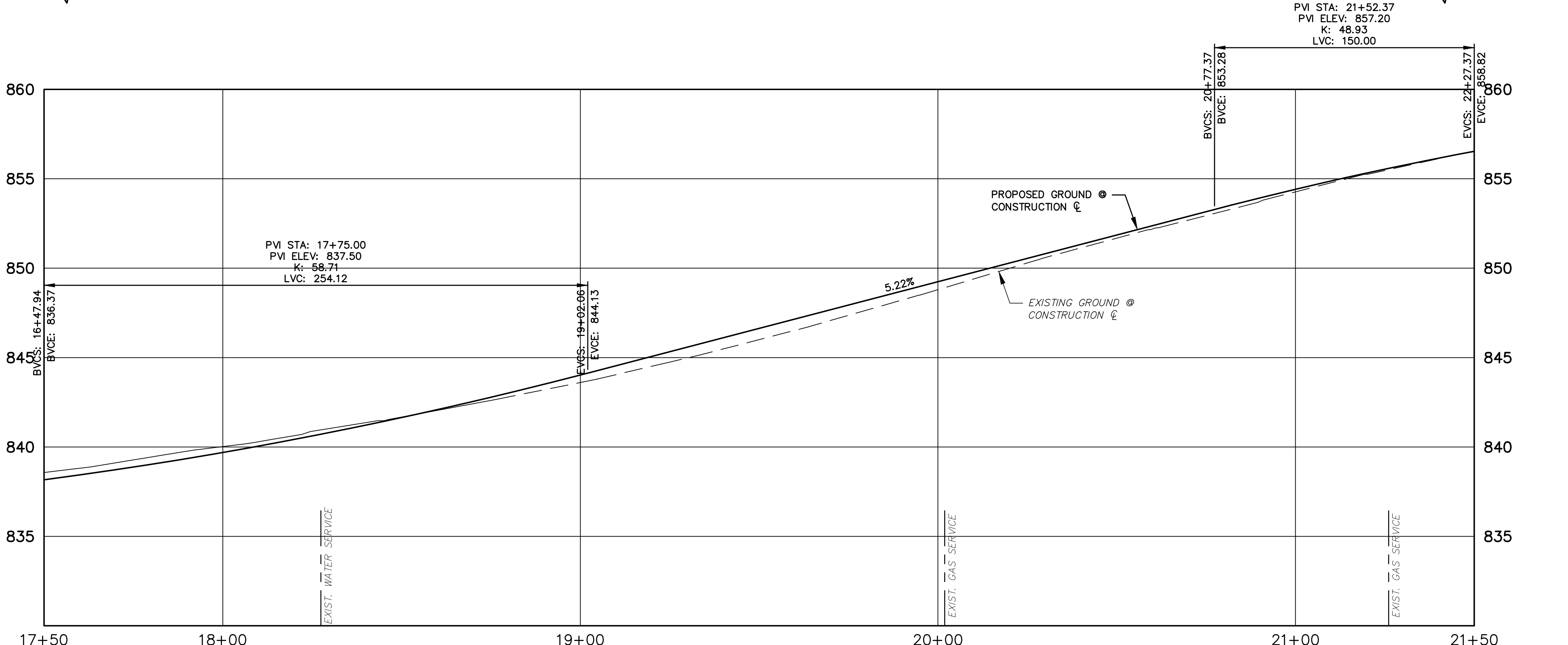
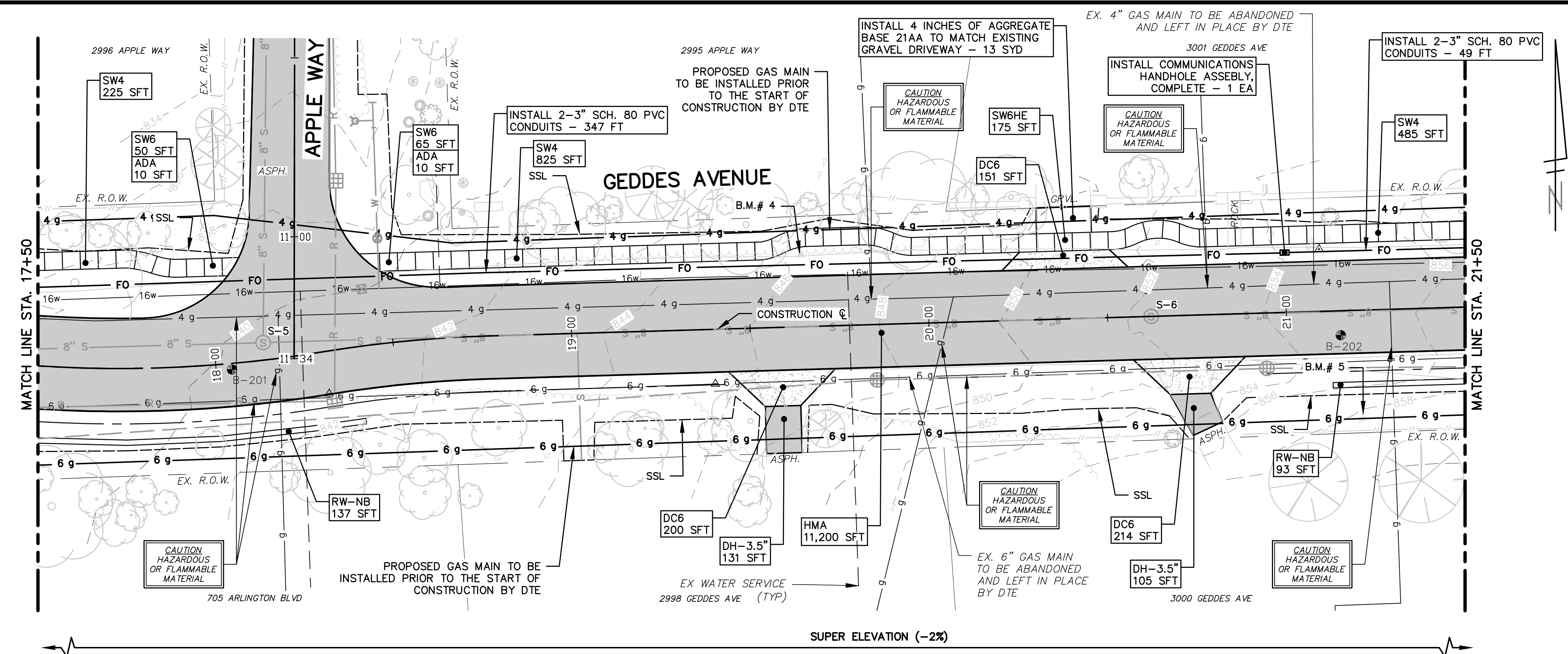
HMA	PLACE HMA AS SPECIFIED IN THE APPLICATION TABLE
CG	PLACE CONCRETE BARRIER CURB & GUTTER, P1, PER DETAIL.
DO-L	PLACE DRIVEWAY OPENING, CONC, DETAIL L, HIGH EARLY.
DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, HIGH EARLY.
DC6	PLACE CONC. DRIVE APPROACH, NON-REINFORCED, HIGH EARLY, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL.
DH--	PLACE HMA DRIVE APPROACH AT THE THICKNESS AS SHOWN ON THE PLANS. IF THICKNESS > 3" PLACE IN LIFTS AS DIRECTED BY THE ENGINEER.
SW4	PLACE 4 INCH CONCRETE SIDEWALK AND COMPACT 6 INCH SUBBASE, CIP, CLASS II, GRANULAR MATERIAL
SW6	PLACE 6 INCH CONCRETE SIDEWALK OR RAMP AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL
SW6HE	PLACE 6 INCH CONCRETE - HIGH EARLY SIDEWALK AND COMPACT 6 INCH SUBBASE, CIP, CLASS II, GRANULAR MATERIAL
ADA	PLACE ADA DETECTABLE WARNING, CAST IN PLACE OVER 6 INCH CONCRETE RAMP
ABO	ADJUST BY OTHERS
RW-NB	INSTALL NATURAL BOULDER RETAINING WALL PER THE DETAIL.
1	ADJUST GATE VALVE BOX MONUMENT BOX, OR GAS BOX.
2	REMOVE AND REPLACE MDOT TYPE B CASTING, MODIFIED.
3	REMOVE AND REPLACE MDOT TYPE K CASTING, MODIFIED
4	REMOVE STRUCTURE AND REPLACE WITH 2' DIA. DRAINAGE STRUCTURE.
5	POINT STRUCTURE.
6	ADJUST MDOT TYPE B CASTING TO FINISH GRADE.
7	ADJUST MDOT TYPE K CASTING TO FINISH GRADE.
8--	ADDITIONAL DEPTH DRAINAGE STRUCTURE ADJUST /REPAIR AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
9	PLACE MOUNTABLE CONCRETE CURB, P1 PER DETAIL.

BENCH MARK INFORMATION

B.M.#	DESCRIPTION	ELEV.
3	BOAT SPIKE IN S. SIDE POWER POLE ON THE N. SIDE OF GEDES, 2ND POLE W/LY OF APPLE WAY	87.997



STATION	RT EOM	LT EOM
13+50	834.66	834.44
14+00	834.90	834.70
15+00	835.10	835.05
16+00	835.30	835.27
17+00	835.50	835.44
17+50	835.70	835.67




837.91	838.44	838.66	839.27	839.41	839.47	839.63	840.10	840.42	841.37	842.30	843.39	844.31	845.38	846.40	847.23	848.31	849.53	850.83	851.39	852.14	852.75	853.44	854.07	855.34	856.40	856.82
838.16	838.63	839.15	839.69	840.02	840.62	841.65	842.60	843.61	844.03	844.75	845.33	846.00	847.36	847.94	848.80	849.25	850.29	850.55	851.68	851.86	852.94	853.16	854.27	854.41	855.54	856.54
837.92	838.41	838.63	839.45	840.40	841.20	841.68	842.54	843.47	844.37	844.66	845.09	845.89	847.18	847.70	848.47	849.01	849.81	850.31	851.59	851.62	852.37	852.92	853.81	854.17	855.18	856.43
LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM
RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM

- CONSTRUCTION NOTES:**
- SEE UTILITY SHEETS FOR STORM SEWER, SANITARY SEWER, INFILTRATION BEDS AND WATER MAIN STRUCTURE AND PIPE REMOVALS AND PLACEMENTS.
 - FOR SIDEWALK AND PAVEMENT REMOVALS, SAWCUT EXISTING MATERIAL FULL-DEPTH AT REMOVAL LIMITS AS DIRECTED BY THE ENGINEER. PAYMENT FOR SAWCUT INCLUDED IN "MACHINE GRADING, MODIFIED." AS DETAILED IN THE PLANS AND SPECIFICATIONS.
 - PLACE SIDEWALK AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH PROJECT DETAIL SHEETS, GRADING DETAIL SHEETS, AND PROJECT SPECIFICATIONS. SEE PROJECT DETAIL SHEETS FOR SIDEWALK JOINT LAYOUT AND OTHER RELEVANT INFORMATION.
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CONSTRUCTION KEY	
HMA	PLACE HMA AS SPECIFIED IN THE APPLICATION TABLE
CG	PLACE CONCRETE BARRIER CURB & GUTTER, P1, PER DETAIL.
DO-L	PLACE DRIVEWAY OPENING, CONC, DETAIL L, HIGH EARLY.
DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, HIGH EARLY.
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DH-	PLACE HMA DRIVE APPROACH AT THE THICKNESS AS SHOWN ON THE PLANS. IF THICKNESS > 3" PLACE IN LIFTS AS DIRECTED BY THE ENGINEER.
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SW6	PLACE 6 INCH CONCRETE SIDEWALK OR RAMP AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL.
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ADA	PLACE ADA DETECTABLE WARNING, CAST IN PLACE OVER 6 INCH CONCRETE RAMP
ABO	ADJUST BY OTHERS
RW-NB	INSTALL NATURAL BOULDER RETAINING WALL PER THE DETAIL.
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2	REMOVE AND REPLACE MDOT TYPE B CASTING, MODIFIED.
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5	POINT STRUCTURE.
6	ADJUST MDOT TYPE B CASTING TO FINISH GRADE.
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8-	ADDITIONAL DEPTH DRAINAGE STRUCTURE ADJUST /REPAIR AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
9	PLACE MOUNTABLE CONCRETE CURB, P1 PER DETAIL.

BENCH MARK INFORMATION		
B.M.#	DESCRIPTION	ELEV.
4	BOAT SPIKE IN S. SIDE POWER POLE ON THE N. SIDE OF GEDES, 2ND POLE E'LY OF APPLE WAY	848.158
5	BOAT SPIKE IN S. SIDE POWER POLE ON THE S. SIDE OF GEDES ADJACENT TO HOUSE # 3000	859.581



Know what's below.
Call before you dig.

ISSUED FOR BIDS	APR. 22, 2015	ALP/ANN	CEH	CHECKED
FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH	DATE
FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/ANN	CEH	
PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/ANN	CEH	
REV.	DESCRIPTION	DATE		



CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
www.a2gov.org

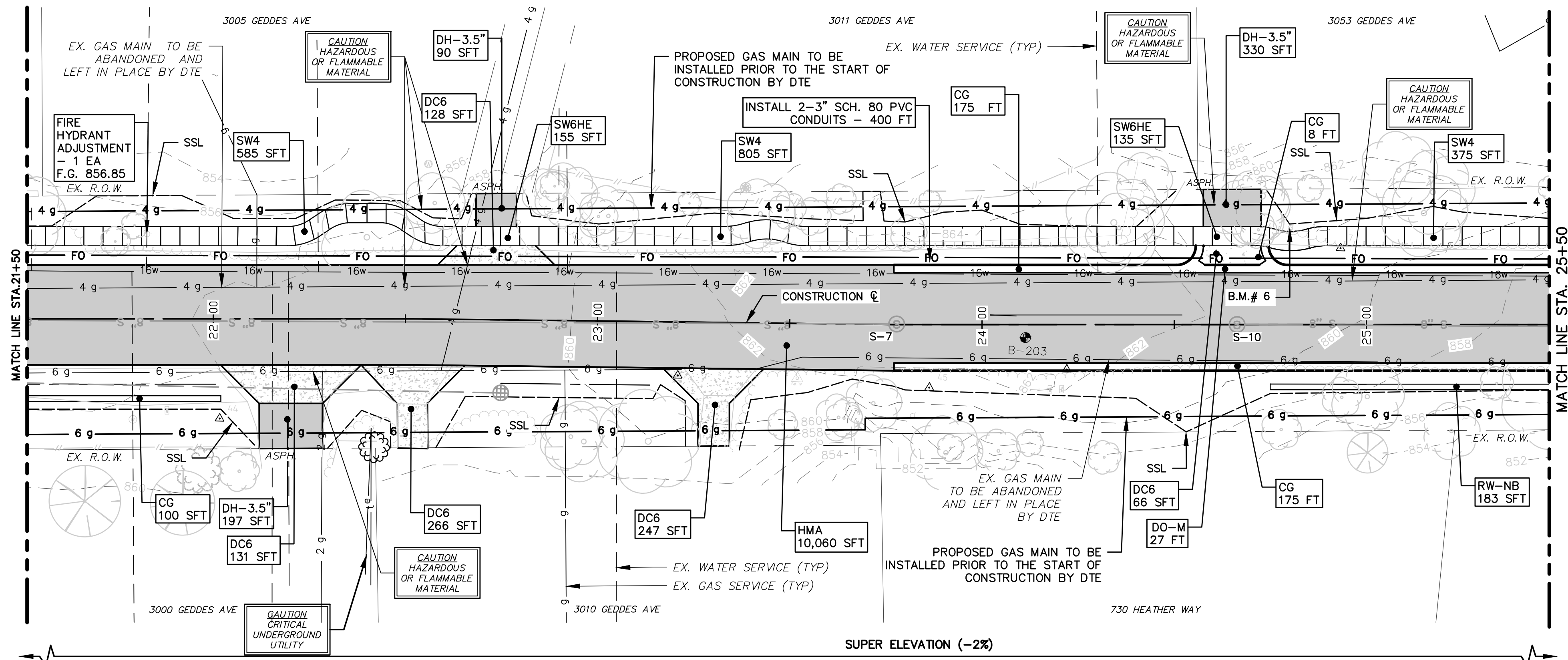
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

GEDES AVENUE IMPROVEMENTS

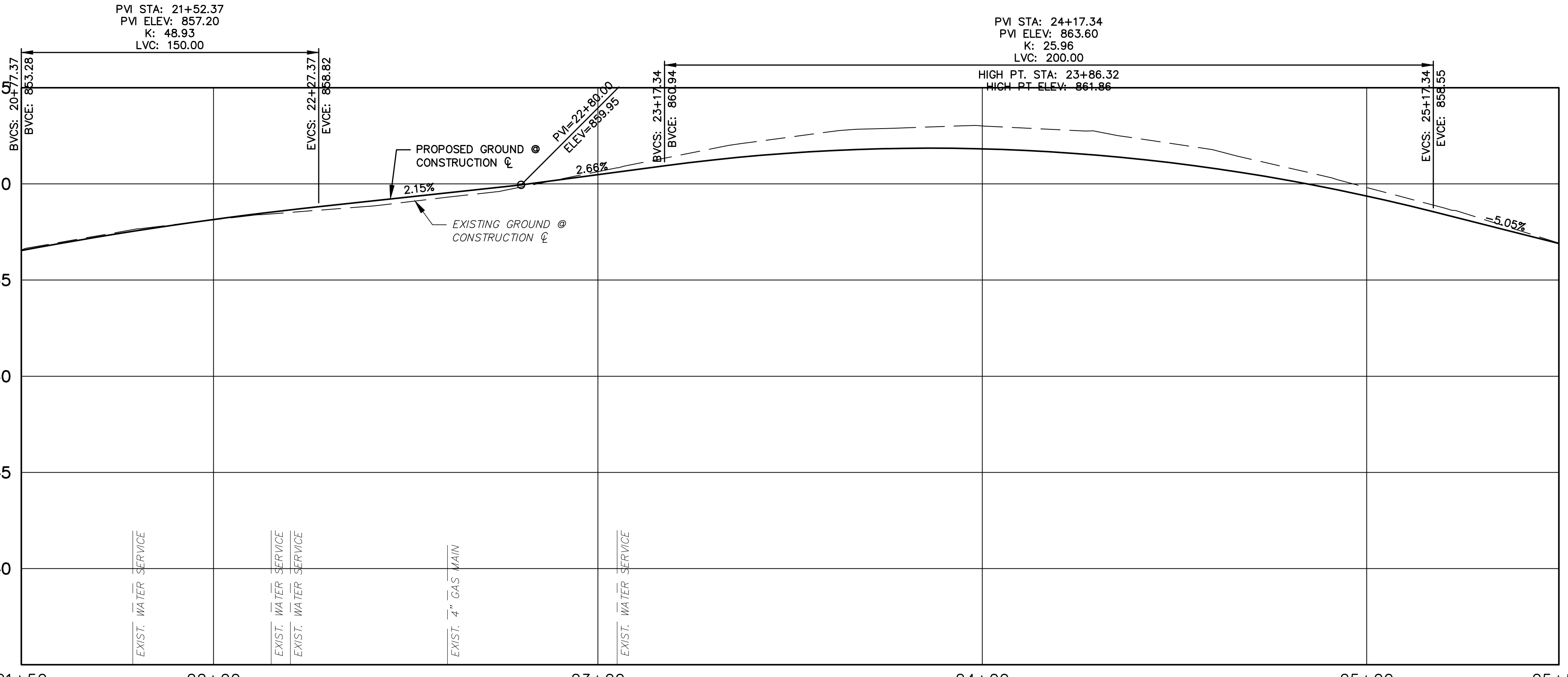
ROAD PLAN AND PROFILE
STA. 17+50 TO STA. 21+50

DRAWING No. RD-04

SHEET No.



- CONSTRUCTION NOTES:**
- SEE UTILITY SHEETS FOR STORM SEWER, SANITARY SEWER, INFILTRATION BEDS AND WATER MAIN STRUCTURE AND PIPE REMOVALS AND PLACEMENTS.
 - FOR SIDEWALK AND PAVEMENT REMOVALS, SAWCUT EXISTING MATERIAL FULL-DEPTH AT REMOVAL LIMITS AS DIRECTED BY THE ENGINEER. PAYMENT FOR SAWCUT INCLUDED IN "MACHINE GRADING, MODIFIED." AS DETAILED IN THE PLANS AND SPECIFICATIONS.
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 - INSTALL NATURAL BOULDER RETAINING WALLS AS DIRECTED BY THE ENGINEER AS DETAILED IN THE PLANS AND SPECIFICATIONS. SEE CROSS SECTIONS FOR TOP OF WALL ELEVATIONS.



Station	RT EOM	LT EOM
21+50	856.30	856.42
22+00	857.30	857.42
23+00	859.20	859.30
24+00	861.10	861.20
25+00	863.00	863.10
25+50	864.90	865.00

CONSTRUCTION KEY	
HMA	PLACE HMA AS SPECIFIED IN THE APPLICATION TABLE
CG	PLACE CONCRETE BARRIER CURB & GUTTER, P1, PER DETAIL.
DO-L	PLACE DRIVEWAY OPENING, CONC, DETAIL L, HIGH EARLY.
DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, HIGH EARLY.
DC6	PLACE CONC. DRIVE APPROACH, NON-REINFORCED, HIGH EARLY, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL.
DH-	PLACE HMA DRIVE APPROACH AT THE THICKNESS AS SHOWN ON THE PLANS. IF THICKNESS > 3" PLACE IN LIFTS AS DIRECTED BY THE ENGINEER.
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ABO	ADJUST BY OTHERS
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2	REMOVE AND REPLACE MDOT TYPE B CASTING, MODIFIED.
3	REMOVE AND REPLACE MDOT TYPE K CASTING, MODIFIED
4	REMOVE STRUCTURE AND REPLACE WITH 2' DIA. DRAINAGE STRUCTURE.
5	POINT STRUCTURE.
6	ADJUST MDOT TYPE B CASTING TO FINISH GRADE.
7	ADJUST MDOT TYPE K CASTING TO FINISH GRADE.
8-	ADDITIONAL DEPTH DRAINAGE STRUCTURE ADJUST /REPAIR AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
9	PLACE MOUNTABLE CONCRETE CURB, P1 PER DETAIL.

BENCH MARK INFORMATION		
B.M.#	DESCRIPTION	ELEV.
6	B SPIKE IN S. SIDE POWER POLE ON THE N. SIDE OF GEDDES AT HOUSE # 3033, 3051, 3053	859.581

Know what's below. Call before you dig.

ISSUED FOR BIDS	APR. 22, 2015	ALP/ANN	CEH	CHECKED
FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH	
FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/ANN	CEH	
PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/ANN	CEH	
REV.	DESCRIPTION	DATE		

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
ROAD PLAN AND PROFILE
STA. 21+50 TO STA. 25+50

DRAWING No. RD-05

SHEET No. 35 OF 187



Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	APR. 22, 2015	ALP/ANN	CEH
FINAL REVIEW SUBMITTAL	FINAL REVIEW SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH
PRELIMINARY PLAN SUBMITTAL	PRELIMINARY PLAN SUBMITTAL	MAR. 13, 2015	ALP/ANN	CEH
		JAN. 29, 2015	ALP/ANN	CEH

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
www.a2gov.org



PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
ROAD PLAN AND PROFILE
STA. 29+50 TO STA. 33+50

SCALE PLAN: 1"=20'
PROFILE: 1"=4'
DRAWING No. RD-07
SHEET No.

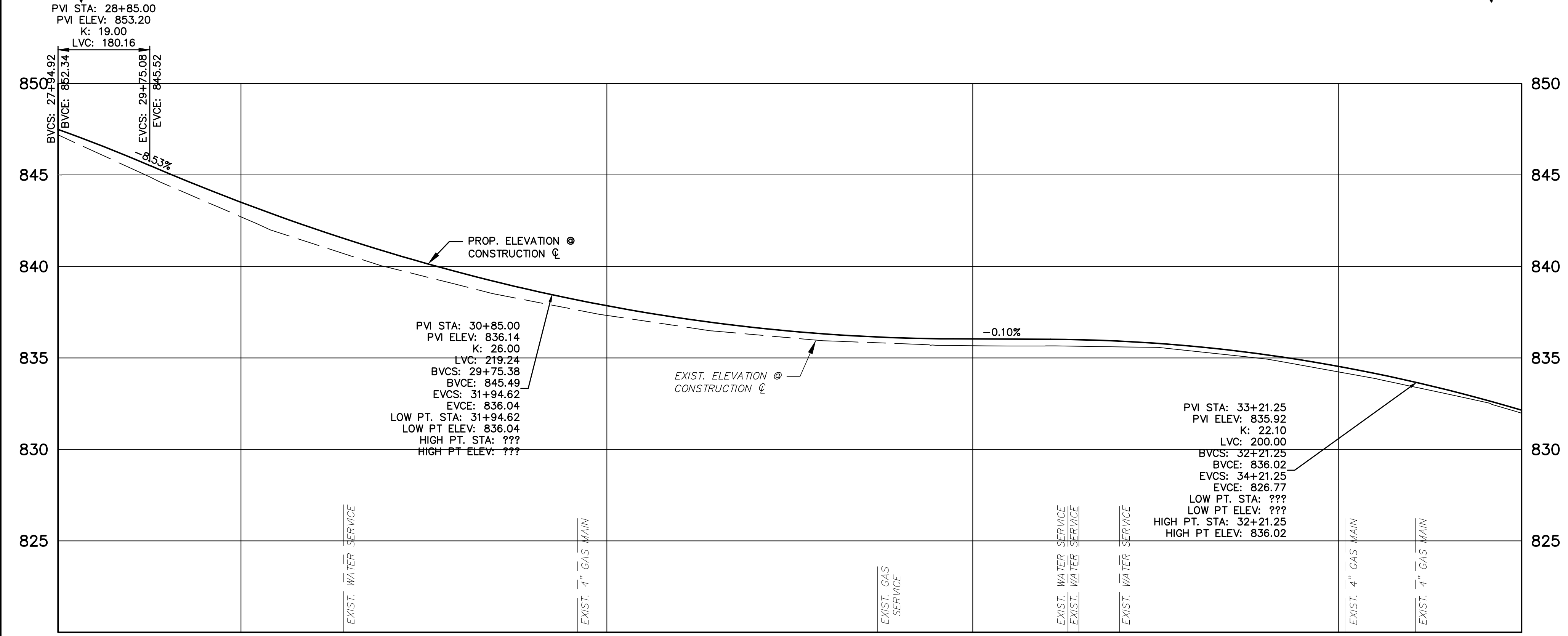
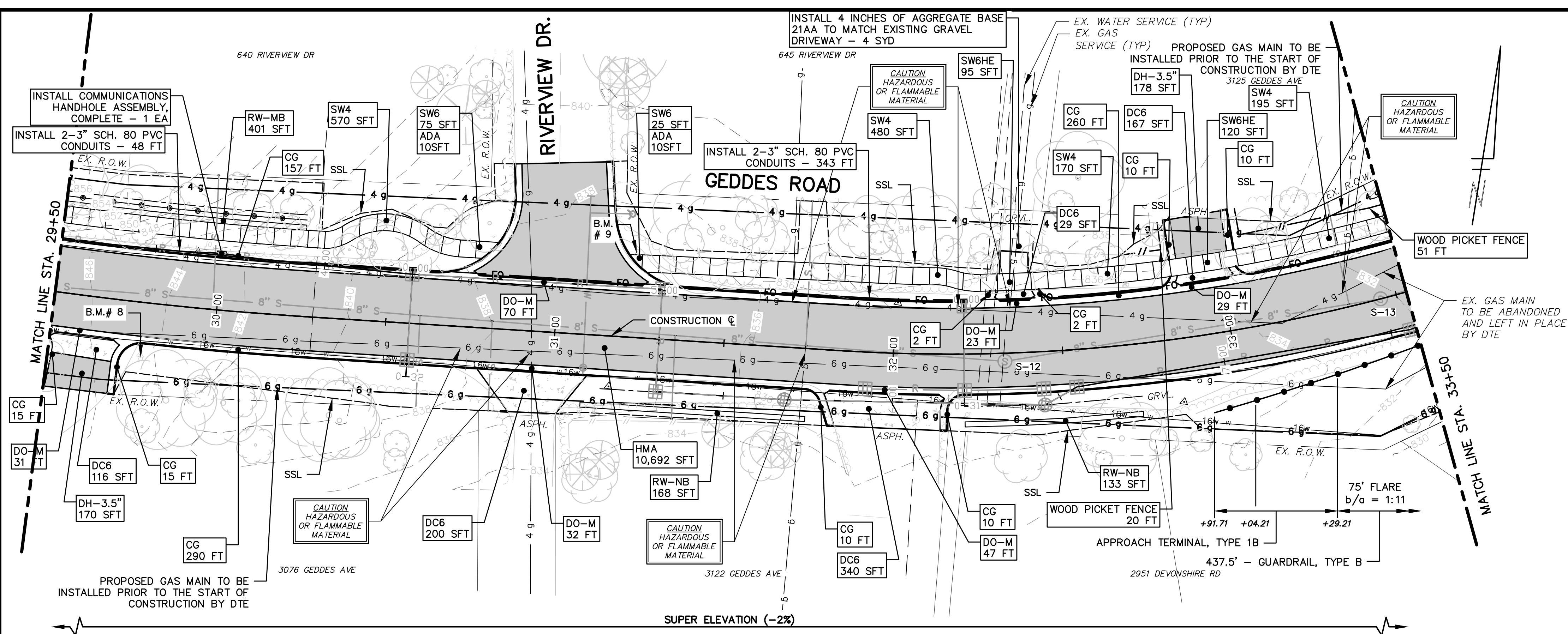
CONSTRUCTION NOTES:

- SEE UTILITY SHEETS FOR STORM SEWER, SANITARY SEWER, INFILTRATION BEDS AND WATER MAIN STRUCTURE AND PIPE REMOVALS AND PLACEMENTS.
- FOR SIDEWALK AND PAVEMENT REMOVALS, SAWCUT EXISTING MATERIAL FULL-DEPTH AT REMOVAL LIMITS AS DIRECTED BY THE ENGINEER. PAYMENT FOR SAWCUT INCLUDED IN "MACHINE GRADING, MODIFIED." AS DETAILED IN THE PLANS AND SPECIFICATIONS.
- PLACE SIDEWALK AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH PROJECT DETAIL SHEETS, GRADING DETAIL SHEETS, AND PROJECT SPECIFICATIONS. SEE PROJECT DETAIL SHEETS FOR SIDEWALK JOINT LAYOUT AND OTHER RELEVANT INFORMATION.
- ALL TREES WITHIN PROJECT LIMITS SHALL BE PROTECTED PER CITY OF ANN ARBOR'S DETAIL AND AS DIRECTED BY THE ENGINEER.
- INSTALL COMMUNICATIONS HANDHOLE ASSEMBLY AND CONDUITS AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE PROJECT DETAILS AND SPECIFICATIONS.
- INSTALL NATURAL BOULDER RETAINING WALLS AS DIRECTED BY THE ENGINEER AS DETAILED IN THE PLANS AND SPECIFICATIONS. SEE CROSS SECTIONS AND DETAIL GRADE SHEETS FOR TOP OF WALL ELEVATIONS.
- INSTALL MODULAR CONCRETE BLOCK WALL AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE PROJECT PLANS, DETAILS AND SPECIFICATIONS. SEE MODULAR CONCRETE BLOCK WALL PLAN SHEET FOR MORE INFORMATION.
- INSTALL GUARDRAIL AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE PROJECT PLANS, DETAILS AND SPECIFICATIONS.
- INSTALL WOOD PICKET FENCE AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE PROJECT PLANS, DETAILS AND SPECIFICATIONS.

CONSTRUCTION KEY

HMA	PLACE HMA AS SPECIFIED IN THE APPLICATION TABLE
CG	PLACE CONCRETE BARRIER CURB & GUTTER, P1, PER DETAIL.
DO-L	PLACE DRIVEWAY OPENING, CONC, DETAIL L, HIGH EARLY.
DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, HIGH EARLY.
DC6	PLACE CONC. DRIVE APPROACH, NON-REINFORCED, HIGH EARLY, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL.
DH-	PLACE HMA DRIVE APPROACH AT THE THICKNESS AS SHOWN ON THE PLANS. IF THICKNESS > 3" PLACE IN LIFTS AS DIRECTED BY THE ENGINEER.
SW4	PLACE 4 INCH CONCRETE SIDEWALK AND COMPACT 6 INCH SUBBASE, CIP, CLASS II, GRANULAR MATERIAL.
SW6	PLACE 6 INCH CONCRETE SIDEWALK OR RAMP AND COMPACT 6 INCH SUBBASE, CIP, CLASS II, GRANULAR MATERIAL.
SW6HE	PLACE 6 INCH CONCRETE - HIGH EARLY SIDEWALK AND COMPACT 6 INCH SUBBASE, CIP, CLASS II, GRANULAR MATERIAL.
ADA	PLACE ADA DETECTABLE WARNING, CAST IN PLACE OVER 6 INCH CONCRETE RAMP
ABO	ADJUST BY OTHERS
RW-NB	INSTALL NATURAL BOULDER RETAINING WALL PER THE DETAIL.
RW-MB	INSTALL MODULAR BLOCK WALL.
1	ADJUST GATE VALVE BOX MONUMENT BOX, OR GAS BOX.
2	REMOVE AND REPLACE MDOT TYPE B CASTING, MODIFIED.
3	REMOVE AND REPLACE MDOT TYPE K CASTING, MODIFIED.
4	REMOVE STRUCTURE AND REPLACE WITH 2' DIA. DRAINAGE STRUCTURE.
5	POINT STRUCTURE.
6	ADJUST MDOT TYPE B CASTING TO FINISH GRADE.
7	ADJUST MDOT TYPE K CASTING TO FINISH GRADE.
8-	ADDITIONAL DEPTH DRAINAGE STRUCTURE ADJUST /REPAIR AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
9	PLACE MOUNTABLE CONCRETE CURB, P1 PER DETAIL.

B.M.#	DESCRIPTION	ELEV.
8	RAILROAD SPIKE IN S. SIDE POWER POLE ON THE S. SIDE GEDDES AT E'LY DRIVE TO HOSE # 3076	845.797
9	BOAT SPIKE IN S'LY SIDE POWER POLE AT THE NE CORNER OF GEDDES AND RIVERVIEW	838.291



STATION	RT EOM	LT EOM
29+50	847.30 [847.29]	847.74 [847.76]
30+00	844.89 [845.33]	844.78 [845.53]
31+00	839.31 [840.00]	839.04 [840.47]
32+00	835.39 [835.84]	835.76 [836.40]
33+00	831.15 [831.11]	831.75 [831.58]
33+50	828.28 [828.28]	831.23 [831.23]



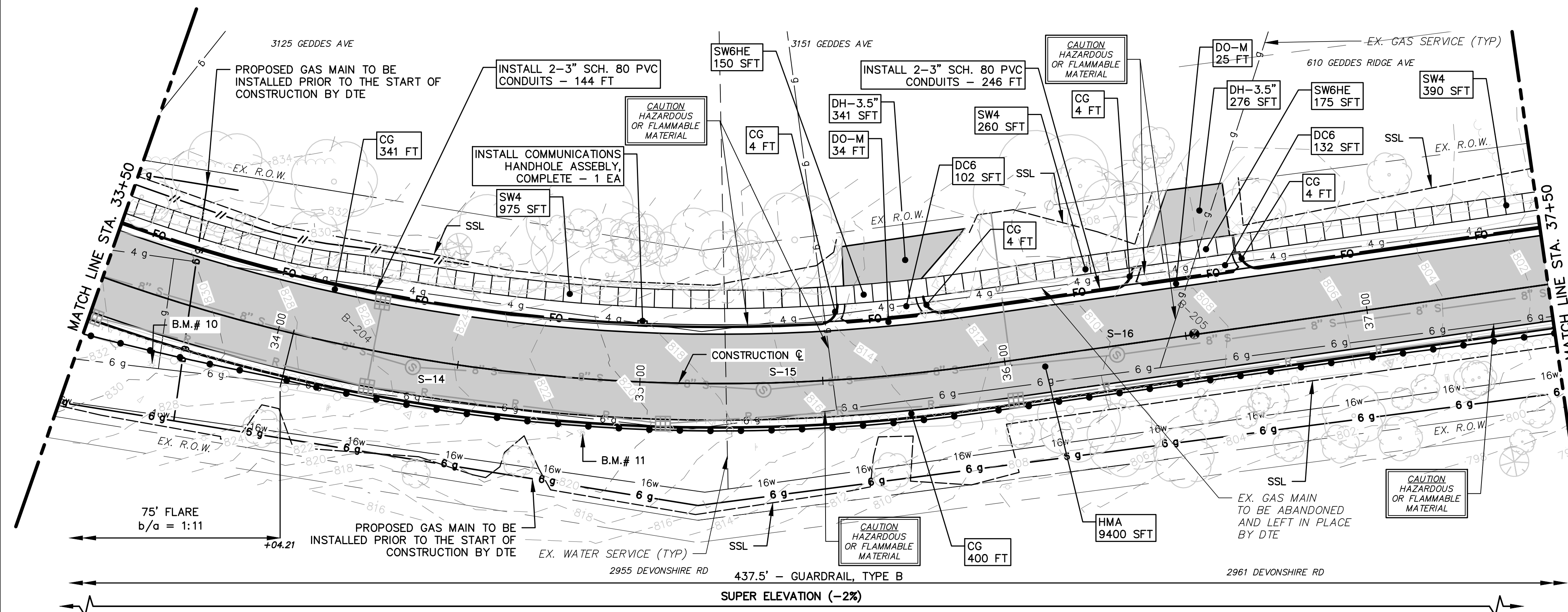
Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
ISSUED FOR BIDS		APR. 22, 2015	ALP/ANN	CEH
FINAL PLAN SUBMITTAL		MAR. 26, 2015	ALP/ANN	CEH
FINAL REVIEW SUBMITTAL		MAR. 13, 2015	ALP/ANN	CEH
PRELIMINARY PLAN SUBMITTAL		JAN. 29, 2015	ALP/ANN	CEH

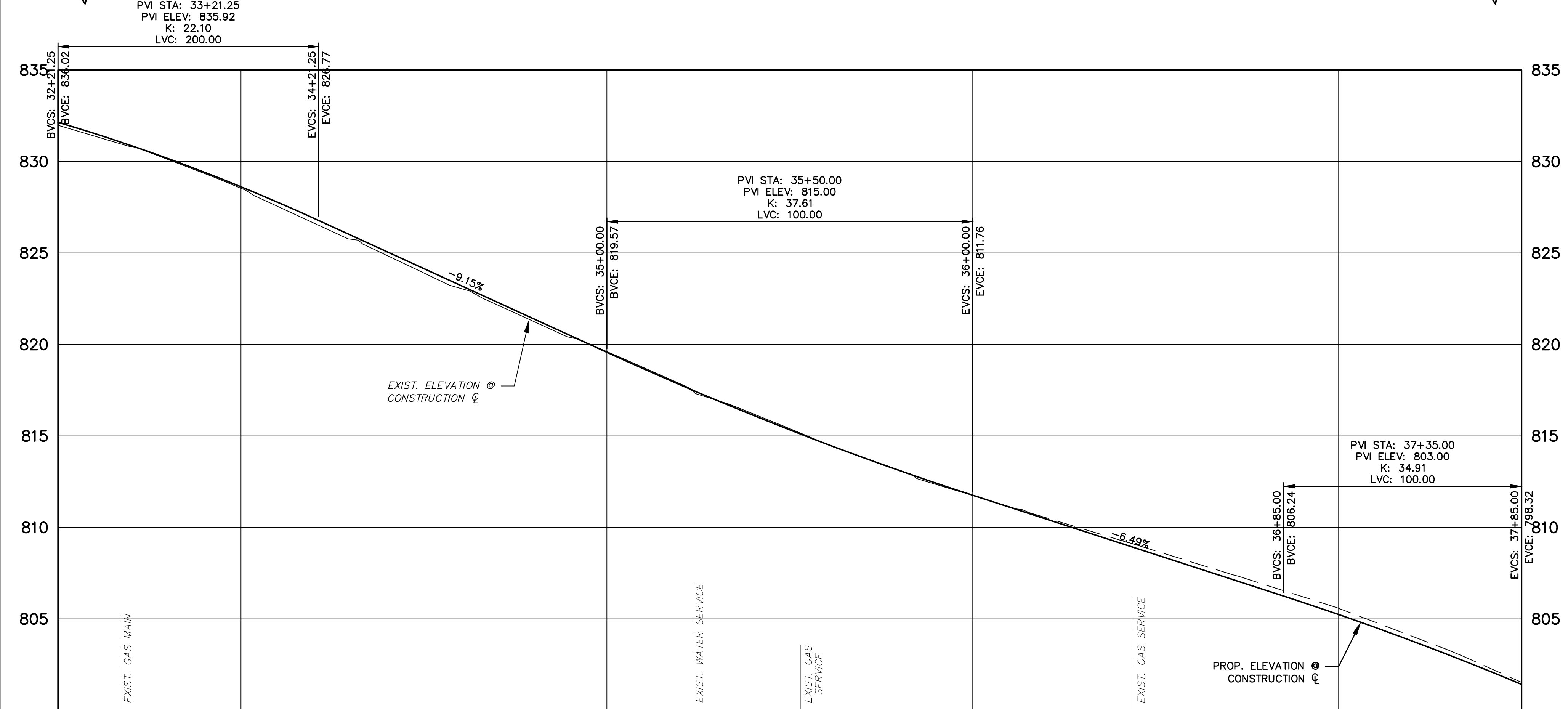
CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
www.cas.gov.org

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
ROAD PLAN AND PROFILE
STA. 33+50 TO STA. 37+50
SCALE PLAN: 1"=20'
PROFILE: 1"=4'
DRAWING No. RD-08
SHEET No.

- CONSTRUCTION NOTES:**
- SEE UTILITY SHEETS FOR STORM SEWER, SANITARY SEWER, INFILTRATION BEDS AND WATER MAIN STRUCTURE AND PIPE REMOVALS AND PLACEMENTS.
 - FOR SIDEWALK AND PAVEMENT REMOVALS, SAWCUT EXISTING MATERIAL FULL-DEPTH AT REMOVAL LIMITS AS DIRECTED BY THE ENGINEER. PAYMENT FOR SAWCUT INCLUDED IN "MACHINE GRADING, MODIFIED." AS DETAILED IN THE PLANS AND SPECIFICATIONS.
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 - INSTALL WOOD PICKET FENCE AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE PROJECT PLANS, DETAILS AND SPECIFICATIONS.



CONSTRUCTION KEY	
HMA	PLACE HMA AS SPECIFIED IN THE APPLICATION TABLE
CG	PLACE CONCRETE BARRIER CURB & GUTTER, P1, PER DETAIL.
DO-L	PLACE DRIVEWAY OPENING, CONC, DETAIL L, HIGH EARLY.
DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, HIGH EARLY.
DC6	PLACE CONC. DRIVE APPROACH, NON-REINFORCED, HIGH EARLY, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL.
DH-	PLACE HMA DRIVE APPROACH AT THE THICKNESS AS SHOWN ON THE PLANS. IF THICKNESS > 3" PLACE IN LIFTS AS DIRECTED BY THE ENGINEER.
SW4	PLACE 4 INCH CONCRETE SIDEWALK AND COMPACT 6 INCH SUBBASE, CIP, CLASS II, GRANULAR MATERIAL.
SW6	PLACE 6 INCH CONCRETE SIDEWALK OR RAMP AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL.
SW6HE	PLACE 6 INCH CONCRETE - HIGH EARLY SIDEWALK AND COMPACT 6 INCH SUBBASE, CIP, CLASS II, GRANULAR MATERIAL.
ADA	PLACE ADA DETECTABLE WARNING, CAST IN PLACE OVER 6 INCH CONCRETE RAMP
ABO	ADJUST BY OTHERS
RW-NB	INSTALL NATURAL BOULDER RETAINING WALL PER THE DETAIL.
RW-MB	INSTALL MODULAR BLOCK WALL.
1	ADJUST GATE VALVE BOX MONUMENT BOX, OR GAS BOX.
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4	REMOVE STRUCTURE AND REPLACE WITH 2' DIA. DRAINAGE STRUCTURE.
5	POINT STRUCTURE.
6	ADJUST MDOT TYPE B CASTING TO FINISH GRADE.
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9	PLACE MOUNTABLE CONCRETE CURB, P1 PER DETAIL.



STATION	RT EOM	LT EOM
33+50	831.94	832.41
34+00	830.52	830.78
35+00	828.62	828.69
36+00	826.43	824.42
37+00	824.15	821.77
37+50	821.14	819.57

BENCH MARK INFORMATION		
B.M.#	DESCRIPTION	ELEV.
10	RAILROAD SPIKE IN N. SIDE GUY POLE ON THE S. SIDE OF GEDDES OPPOSITE HOUSE # 3125	832.375
11	BOAT SPIKE IN N. SIDE GUY POLE ON THE S. SIDE OF GEDDES OPPOSITE HOUSE # 3151	822.615

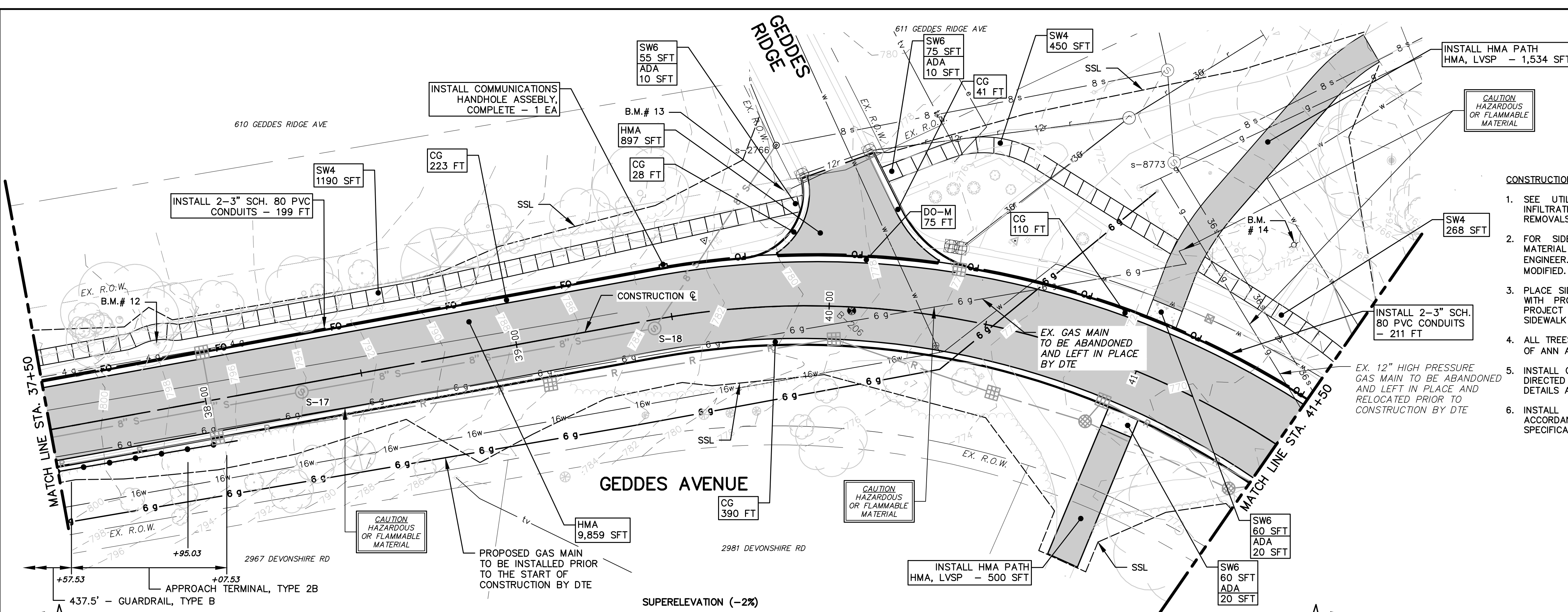


REV.	DESCRIPTION	DATE	DRAWN	CHECKED
ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	APR. 22, 2015	ALP/ANN	CEH
	FINAL REVIEW SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH
	PRELIMINARY PLAN SUBMITTAL	MAR. 13, 2015	ALP/ANN	CEH
		JAN. 29, 2015	ALP/ANN	CEH

CITY OF ANN ARBOR
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
ROAD PLAN AND PROFILE
STA. 37+50 TO STA. 41+50

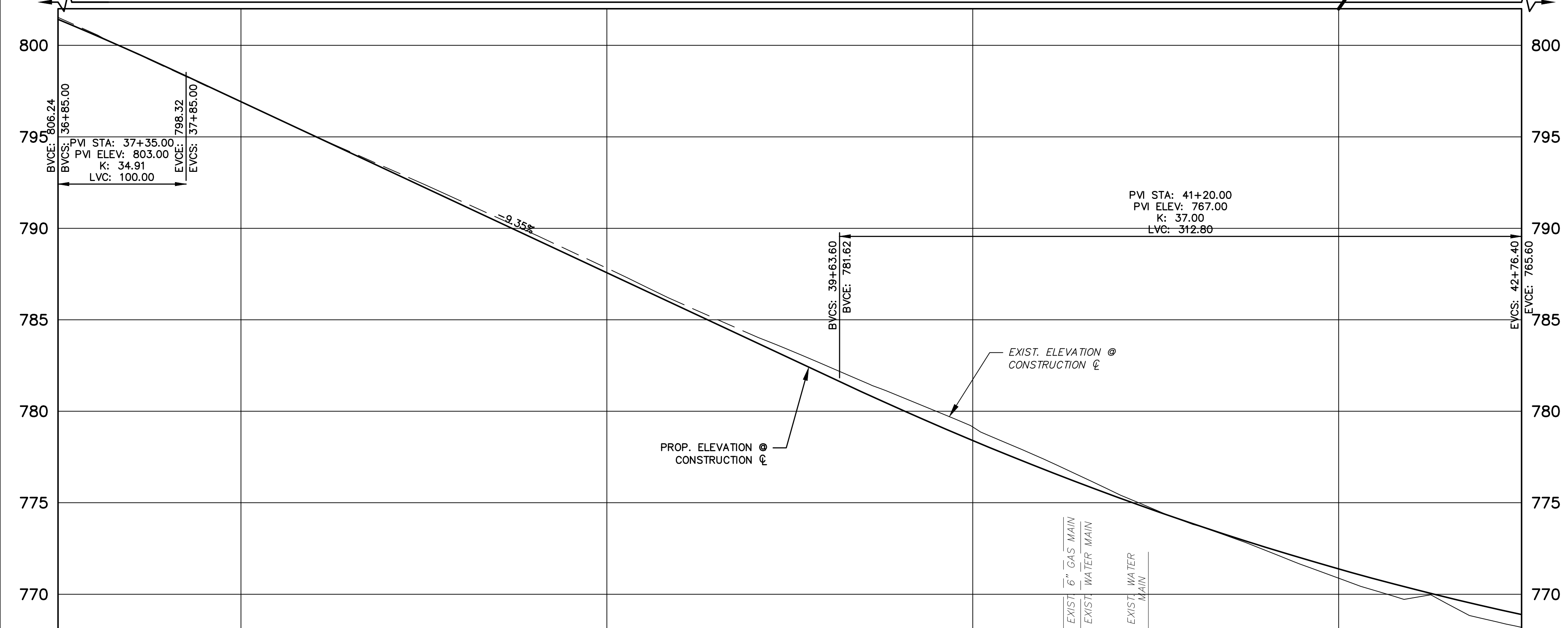
SCALE PLAN: 1"=20'
PROFILE: 1"=4'
DRAWING No. RD-09
SHEET No.
39 OF 187



- CONSTRUCTION NOTES:**
- SEE UTILITY SHEETS FOR STORM SEWER, SANITARY SEWER, INFILTRATION BEDS AND WATER MAIN STRUCTURE AND PIPE REMOVALS AND PLACEMENTS.
 - FOR SIDEWALK AND PAVEMENT REMOVALS, SAWCUT EXISTING MATERIAL FULL-DEPTH AT REMOVAL LIMITS AS DIRECTED BY THE ENGINEER. PAYMENT FOR SAWCUT INCLUDED IN "MACHINE GRADING, MODIFIED." AS DETAILED IN THE PLANS AND SPECIFICATIONS.
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CONSTRUCTION KEY

HMA	PLACE HMA AS SPECIFIED IN THE APPLICATION TABLE
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DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, HIGH EARLY
DC6	PLACE CONC. DRIVE APPROACH, NON-REINFORCED, HIGH EARLY, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL.
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ADA	PLACE ADA DETECTABLE WARNING, CAST IN PLACE OVER 6 INCH CONCRETE RAMP
ABO	ADJUST BY OTHERS
RW-MB	INSTALL MODULAR BLOCK WALL.
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5	POINT STRUCTURE.
6	ADJUST MDOT TYPE B CASTING TO FINISH GRADE.
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STATION	RT EOM	LT EOM
37+50	799.05	799.57
38+00	796.72	799.23
39+00	789.71	787.57
40+00	778.19	776.39
41+00	770.84	771.38
41+50	768.83	768.89

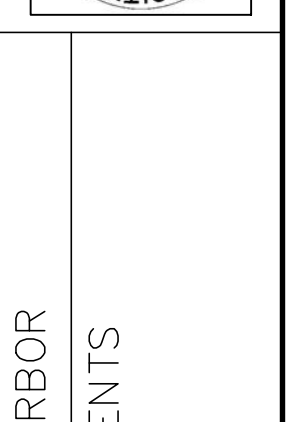
BENCH MARK INFORMATION

B.M.#	DESCRIPTION	ELEV.
12	BOAT SPIKE IN S. SIDE POWER POLE ON THE N. SIDE OF GEDDES, 2ND POLE W/LY OF GEDDES RIDGE	799.215
13	ARROW ON HYDRANT AT THE SW CORNER OF GEDDES AND GEDDES RIDGE	781.887
14	BOLT IN POWER POLE ON THE N. SIDE OF GEDDES, N'LY OF "GALLUP PARK" STONE SIGN	773.714



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
APR. 22, 2015	ISSUED FOR BIDS		CEH	CEH
MAR. 26, 2015	FINAL PLAN SUBMITTAL		ALP/ANN	CEH
MAR. 13, 2015	FINAL REVIEW SUBMITTAL		ALP/ANN	CEH
JAN. 29, 2015	PRELIMINARY PLAN SUBMITTAL		ALP/ANN	CEH

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
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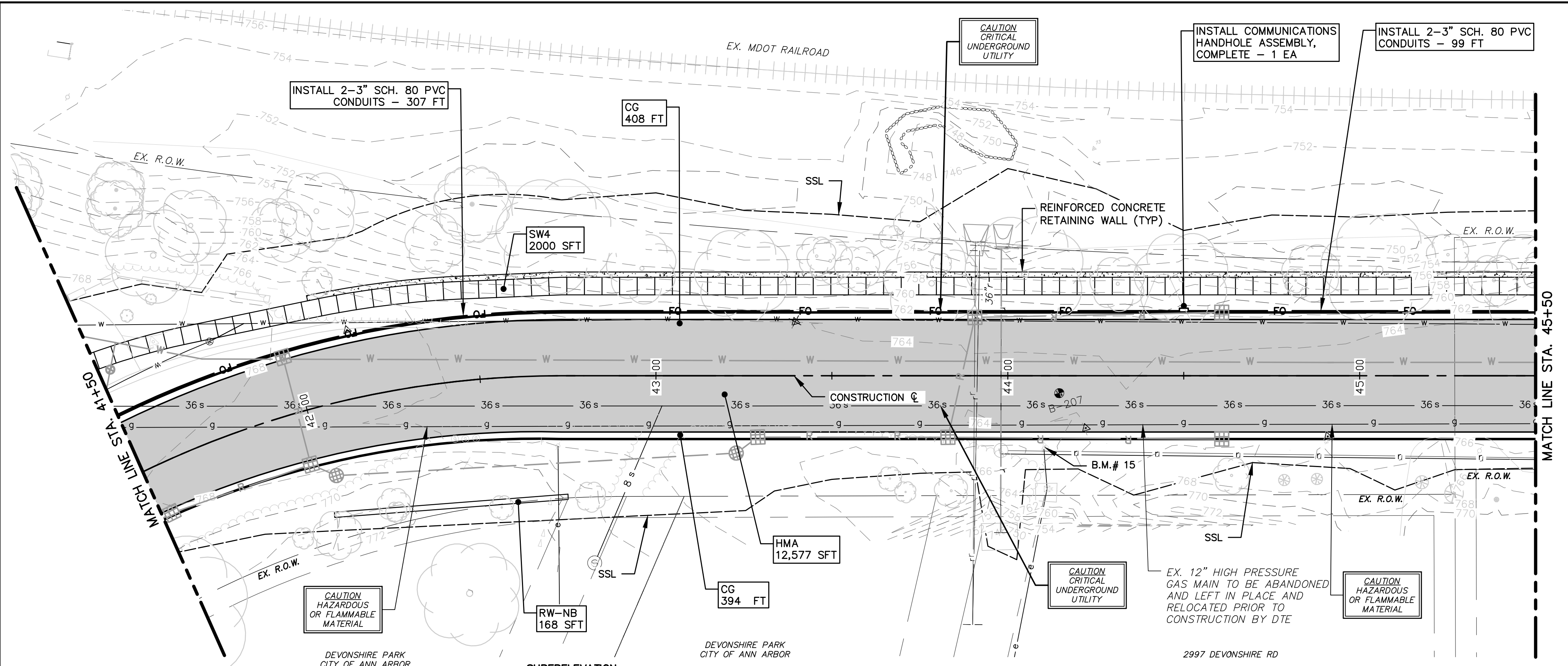
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
ROAD PLAN AND PROFILE
STA. 41+50 TO STA. 45+50

SCALE PLAN: 1"=20'
PROFILE: 1"=4'

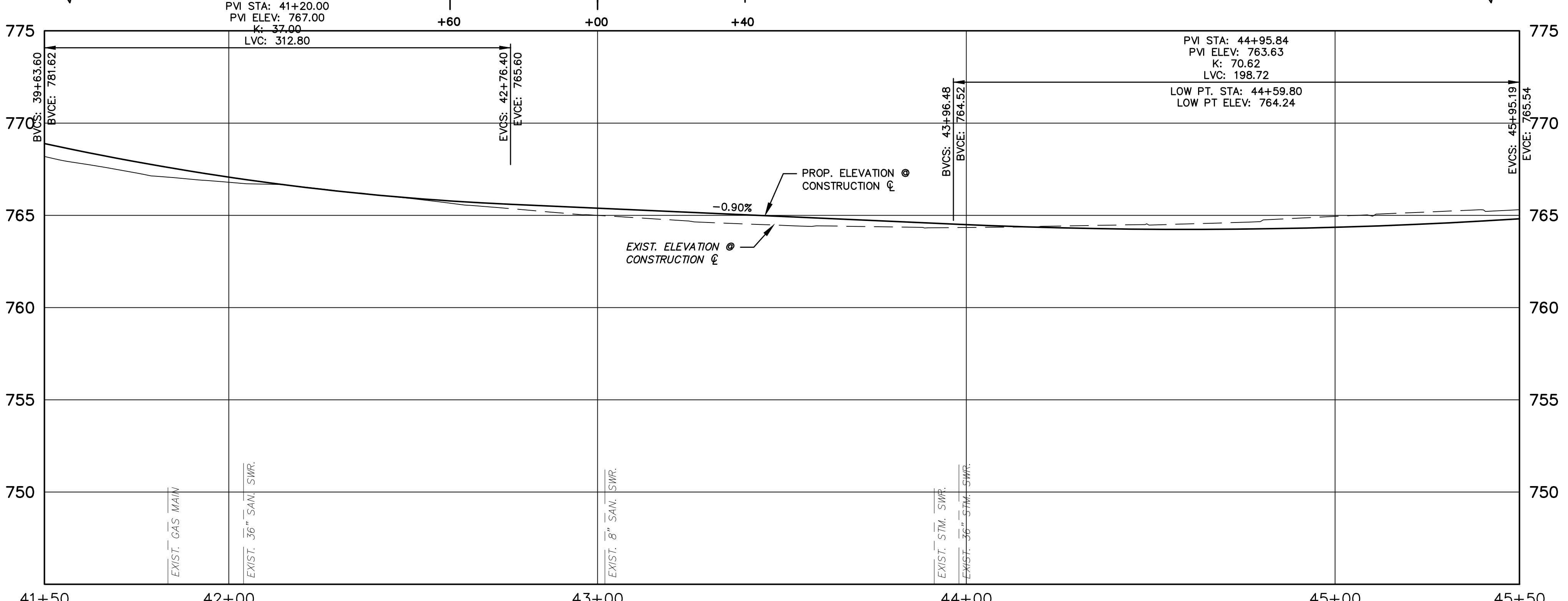
DRAWING No. RD-10
SHEET No.

CONSTRUCTION NOTES:

- SEE UTILITY SHEETS FOR STORM SEWER, SANITARY SEWER, INFILTRATION BEDS AND WATER MAIN STRUCTURE AND PIPE REMOVALS AND PLACEMENTS.
- FOR SIDEWALK AND PAVEMENT REMOVALS, SAWCUT EXISTING MATERIAL FULL-DEPTH AT REMOVAL LIMITS AS DIRECTED BY THE ENGINEER. PAYMENT FOR SAWCUT INCLUDED IN "MACHINE GRADING, MODIFIED." AS DETAILED IN THE PLANS AND SPECIFICATIONS.
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- SEE STRUCTURAL SHEETS FOR REINFORCED CONCRETE RETAINING WALL PLAN, TYPICALS AND DETAILS.



DEVELOPMENT OF SUPERELEVATION RUNOFF (-2% TO 0%) AND TANGENT RUNOUT (0% TO 2%) TO NORMAL CROWN.



STATION	RT EOM	LT EOM
41+50	766.66	769.20
42+00	766.19	768.89
43+00	765.07	765.39
44+00	764.17	764.17
45+50	764.49	764.49

CONSTRUCTION KEY	
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DH-	PLACE HMA DRIVE APPROACH AT THE THICKNESS AS SHOWN ON THE PLANS. IF THICKNESS > 3" PLACE IN LIFTS AS DIRECTED BY THE ENGINEER.
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SW6	PLACE 6 INCH CONCRETE SIDEWALK OR RAMP AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL
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ADA	PLACE ADA DETECTABLE WARNING, CAST IN PLACE OVER 6 INCH CONCRETE RAMP
ABO	ADJUST BY OTHERS
RW-NB	INSTALL NATURAL BOULDER RETAINING WALL PER THE DETAIL.
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9	PLACE MOUNTABLE CONCRETE CURB, P1 PER DETAIL.

BENCH MARK INFORMATION		
B.M.#	DESCRIPTION	ELEV.
15	SPIKE IN N. SIDE POWER POLE ON THE S. SIDE GEDDES, 2ND POLE W/LY OF HICKORY LANE	764.777



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
1	ISSUED FOR BIDS	APR. 22, 2015	ALP/ANN	CEH
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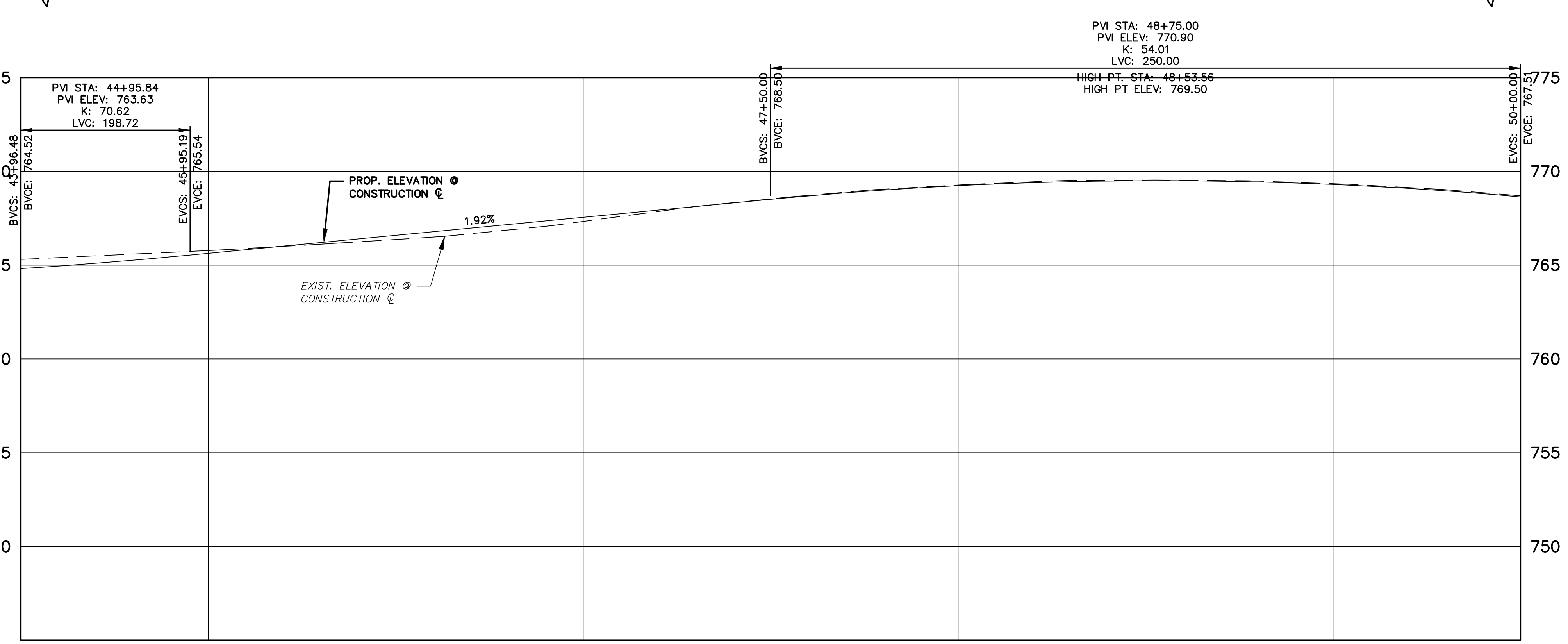
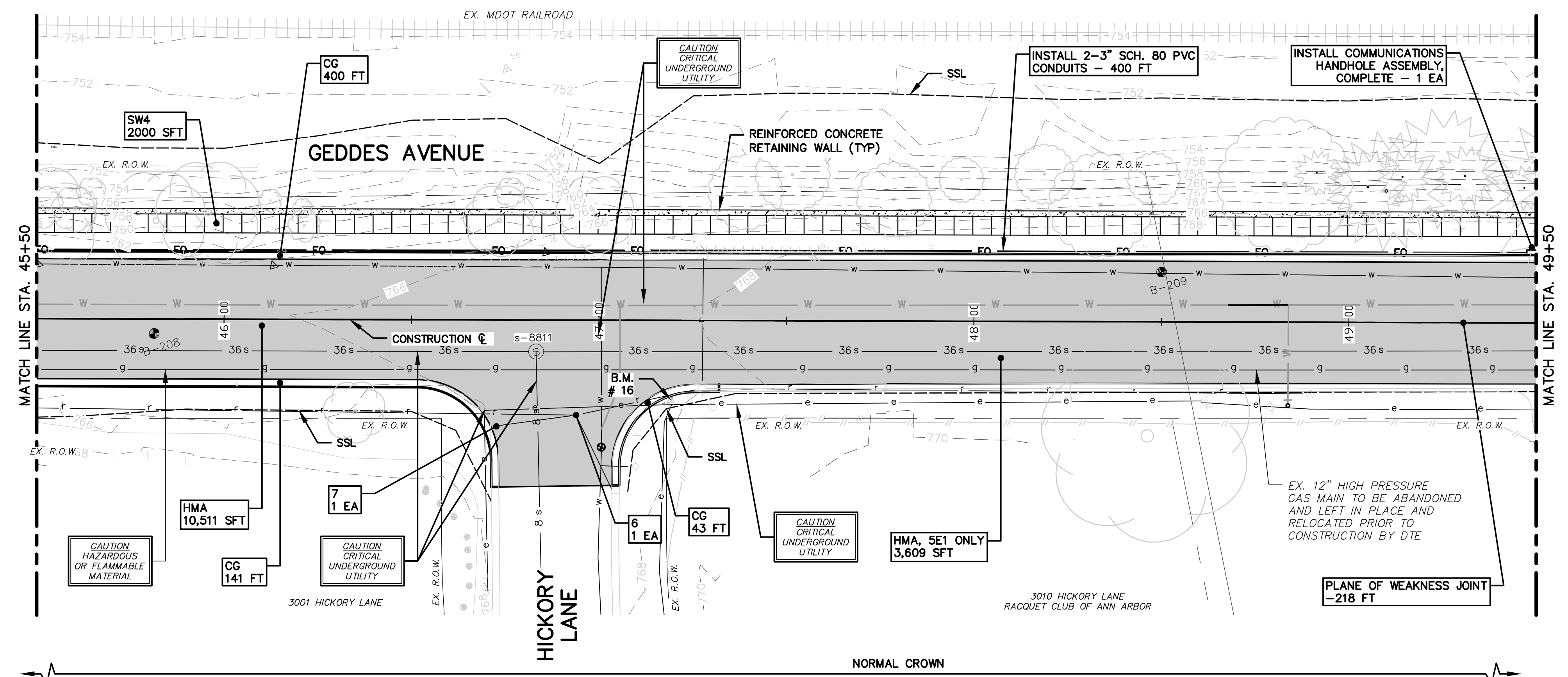
CITY OF ANN ARBOR
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ANN ARBOR, MI 48107-8647
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
ROAD PLAN AND PROFILE
STA. 45+50 TO STA. 49+50

SCALE PLAN: 1"=20'
PROFILE: 1"=4'
DRAWING No. RD-11
SHEET No.
41 OF 187

CONSTRUCTION NOTES:

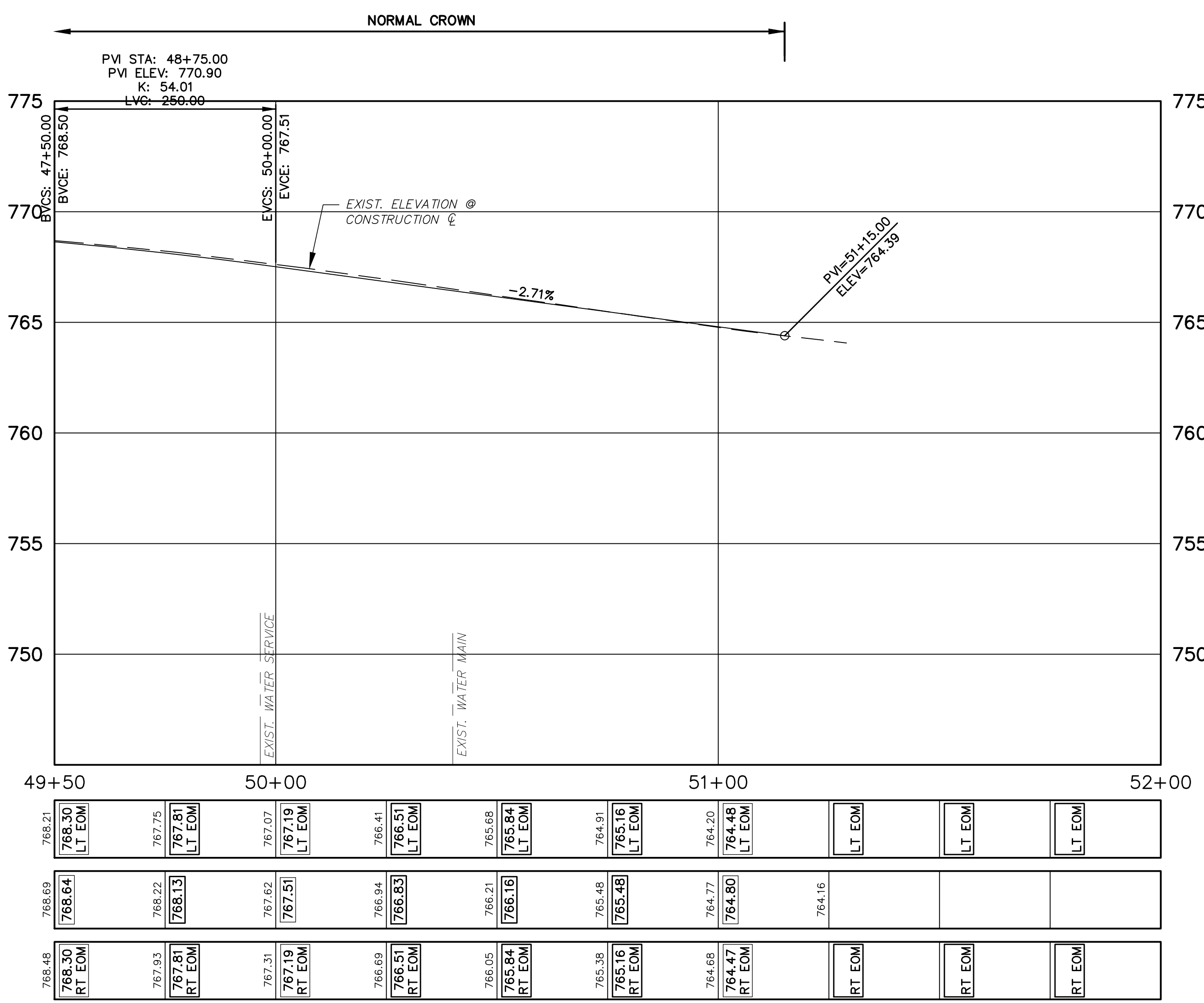
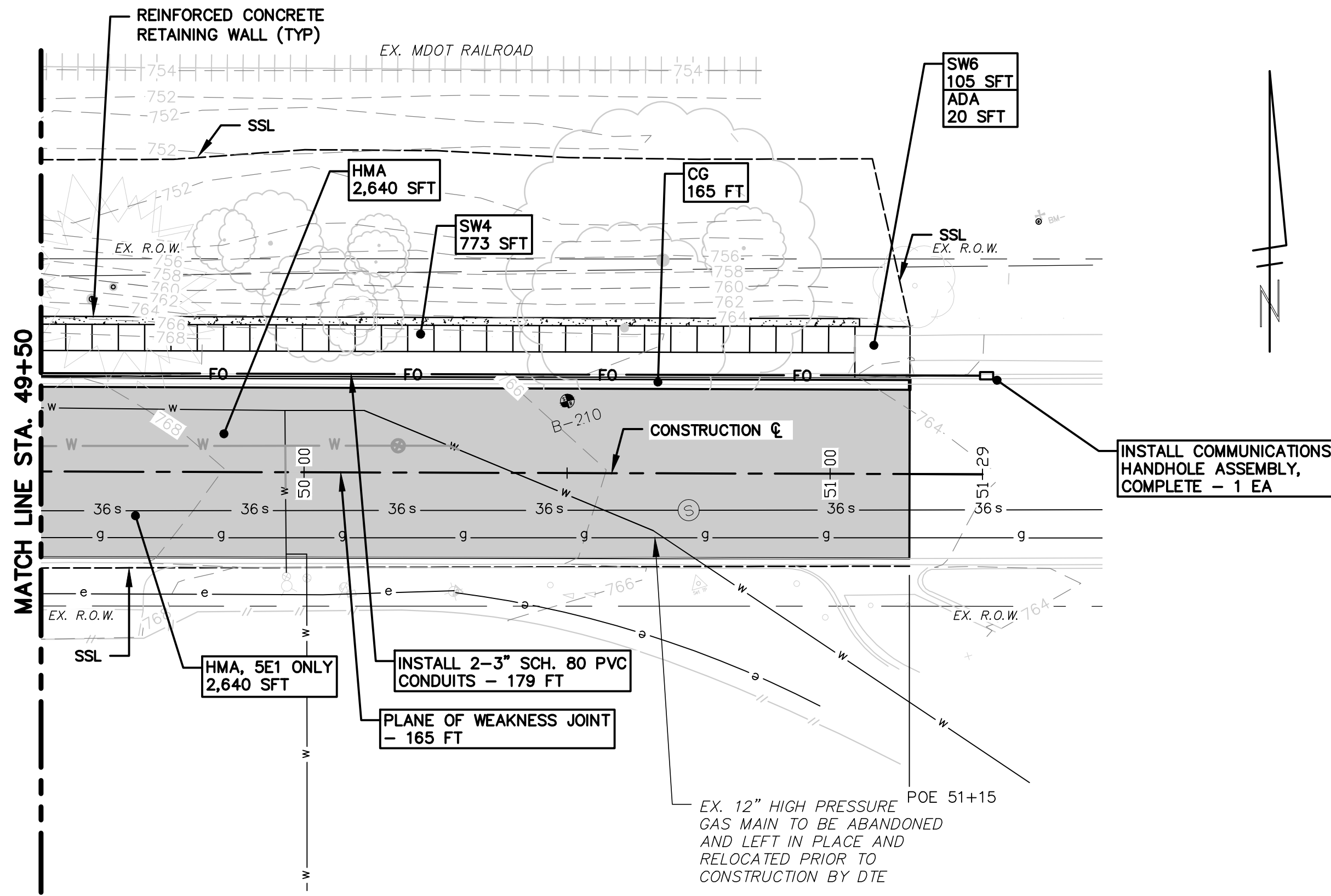
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- SEE STRUCTURAL SHEETS FOR REINFORCED CONCRETE RETAINING WALL PLAN, TYPICALS AND DETAILS.



764.09	764.49	763.88	763.38	762.79	762.45	762.40	762.27	762.49	762.75	762.89	767.22	767.54	767.99	768.02	768.14	768.53	768.50	768.97	768.92	769.26	769.23	769.91	769.48	769.42	769.53	769.49	769.45	769.01	769.13	769.92	769.30	769.08	769.02	768.65	768.21	768.32			
LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM	LT EOM		
765.34	764.81	765.15	765.54	765.18	765.77	765.63	766.05	766.11	766.36	766.59	766.27	766.77	767.07	767.32	767.54	767.99	768.02	768.14	768.53	768.50	768.97	768.92	769.26	769.23	769.91	769.48	769.42	769.53	769.49	769.45	769.01	769.13	769.92	769.30	769.08	769.02	768.65	768.21	768.32
RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM	RT EOM

CONSTRUCTION KEY	
HMA	PLACE HMA AS SPECIFIED IN THE APPLICATION TABLE
CG	PLACE CONCRETE BARRIER CURB & GUTTER, P1, PER DETAIL.
DO-L	PLACE DRIVEWAY OPENING, CONC, DETAIL L, HIGH EARLY.
DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, HIGH EARLY
DC6	PLACE CONC. DRIVE APPROACH, NON-REINFORCED, HIGH EARLY, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL.
DH-	PLACE HMA DRIVE APPROACH AT THE THICKNESS AS SHOWN ON THE PLANS. IF THICKNESS > 3" PLACE IN LIFTS AS DIRECTED BY THE ENGINEER.
SW4	PLACE 4 INCH CONCRETE SIDEWALK AND COMPACT 6 INCH SUBBASE, CIP, CLASS II, GRANULAR MATERIAL
SW6	PLACE 6 INCH CONCRETE SIDEWALK OR RAMP AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL
SW6HE	PLACE 6 INCH CONCRETE - HIGH EARLY SIDEWALK AND COMPACT 6 INCH SUBBASE, CIP, CLASS II, GRANULAR MATERIAL
ADA	PLACE ADA DETECTABLE WARNING, CAST IN PLACE OVER 6 INCH CONCRETE RAMP
ABO	ADJUST BY OTHERS
RW-NB	INSTALL NATURAL BOULDER RETAINING WALL PER THE DETAIL.
RW-MB	INSTALL MODULAR BLOCK WALL.
1	ADJUST GATE VALVE BOX MONUMENT BOX, OR GAS BOX.
2	REMOVE AND REPLACE MDOT TYPE B CASTING, MODIFIED.
3	REMOVE AND REPLACE MDOT TYPE K CASTING, MODIFIED
4	REMOVE STRUCTURE AND REPLACE WITH 2' DIA. DRAINAGE STRUCTURE.
5	POINT STRUCTURE.
6	ADJUST MDOT TYPE B CASTING TO FINISH GRADE.
7	ADJUST MDOT TYPE K CASTING TO FINISH GRADE.
8-	ADDITIONAL DEPTH DRAINAGE STRUCTURE ADJUST /REPAIR AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
9	PLACE MOUNTABLE CONCRETE CURB, P1 PER DETAIL.

BENCH MARK INFORMATION		
B.M.#	DESCRIPTION	ELEV.
16	SPIKE IN N. SIDE POWER POLE AT THE SE CORNER OF GEDDES AND HICKORY LANE	768.324



- CONSTRUCTION NOTES:**
- SEE UTILITY SHEETS FOR STORM SEWER, SANITARY SEWER, INFILTRATION BEDS AND WATER MAIN STRUCTURE AND PIPE REMOVALS AND PLACEMENTS.
 - FOR SIDEWALK AND PAVEMENT REMOVALS, SAWCUT EXISTING MATERIAL FULL-DEPTH AT REMOVAL LIMITS AS DIRECTED BY THE ENGINEER. PAYMENT FOR SAWCUT INCLUDED IN "MACHINE GRADING, MODIFIED. _" AS DETAILED IN THE PLANS AND SPECIFICATIONS.
 - PLACE SIDEWALK AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH PROJECT DETAIL SHEETS, GRADING DETAIL SHEETS, AND PROJECT SPECIFICATIONS. SEE PROJECT DETAIL SHEETS FOR SIDEWALK JOINT LAYOUT AND OTHER RELEVANT INFORMATION.
 - ALL TREES WITHIN PROJECT LIMITS SHALL BE PROTECTED PER CITY OF ANN ARBOR'S DETAIL AND AS DIRECTED BY THE ENGINEER.
 - INSTALL COMMUNICATIONS HANDHOLE ASSEMBLY AND CONDUITS AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE PROJECT DETAILS AND SPECIFICATIONS.
 - SEE STRUCTURAL SHEETS FOR REINFORCED CONCRETE RETAINING WALL PLAN, TYPICALS AND DETAILS.

CONSTRUCTION KEY	
HMA	PLACE HMA AS SPECIFIED IN THE APPLICATION TABLE
CG	PLACE CONCRETE BARRIER CURB & GUTTER, P1, PER DETAIL.
DO-L	PLACE DRIVEWAY OPENING, CONC, DETAIL L, HIGH EARLY.
DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, HIGH EARLY
DC6	PLACE CONC. DRIVE APPROACH, NON-REINFORCED, HIGH EARLY, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL.
DH_	PLACE HMA DRIVE APPROACH AT THE THICKNESS AS SHOWN ON THE PLANS. IF THICKNESS > 3" PLACE IN LIFTS AS DIRECTED BY THE ENGINEER.
SW4	PLACE 4 INCH CONCRETE SIDEWALK AND COMPACT 6 INCH SUBBASE, CIP, CLASS II, GRANULAR MATERIAL
SW6	PLACE 6 INCH CONCRETE SIDEWALK OR RAMP AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL
SW6HE	PLACE 6 INCH CONCRETE - HIGH EARLY SIDEWALK AND COMPACT 6 INCH SUBBASE, CIP, CLASS II, GRANULAR MATERIAL
ADA	PLACE ADA DETECTABLE WARNING, CAST IN PLACE OVER 6 INCH CONCRETE RAMP
ABO	ADJUST BY OTHERS
RW-NB	INSTALL NATURAL BOULDER RETAINING WALL PER THE DETAIL.
RW-MB	INSTALL MODULAR BLOCK WALL.
1	ADJUST GATE VALVE BOX MONUMENT BOX, OR GAS BOX.
2	REMOVE AND REPLACE MDOT TYPE B CASTING, MODIFIED.
3	REMOVE AND REPLACE MDOT TYPE K CASTING, MODIFIED
4	REMOVE STRUCTURE AND REPLACE WITH 2' DIA. DRAINAGE STRUCTURE.
5	POINT STRUCTURE.
6	ADJUST MDOT TYPE B CASTING TO FINISH GRADE.
7	ADJUST MDOT TYPE K CASTING TO FINISH GRADE.
8-	ADDITIONAL DEPTH DRAINAGE STRUCTURE ADJUST / REPAIR AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
9	PLACE MOUNTABLE CONCRETE CURB, P1 PER DETAIL.

Know what's below.
Call before you dig.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
ISSUED FOR BIDS	ISSUED FOR BIDS	APR. 22, 2015	ALP/ANN	CEH
FINAL PLAN SUBMITTAL	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH
FINAL REVIEW SUBMITTAL	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/ANN	CEH
PRELIMINARY PLAN SUBMITTAL	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/ANN	CEH

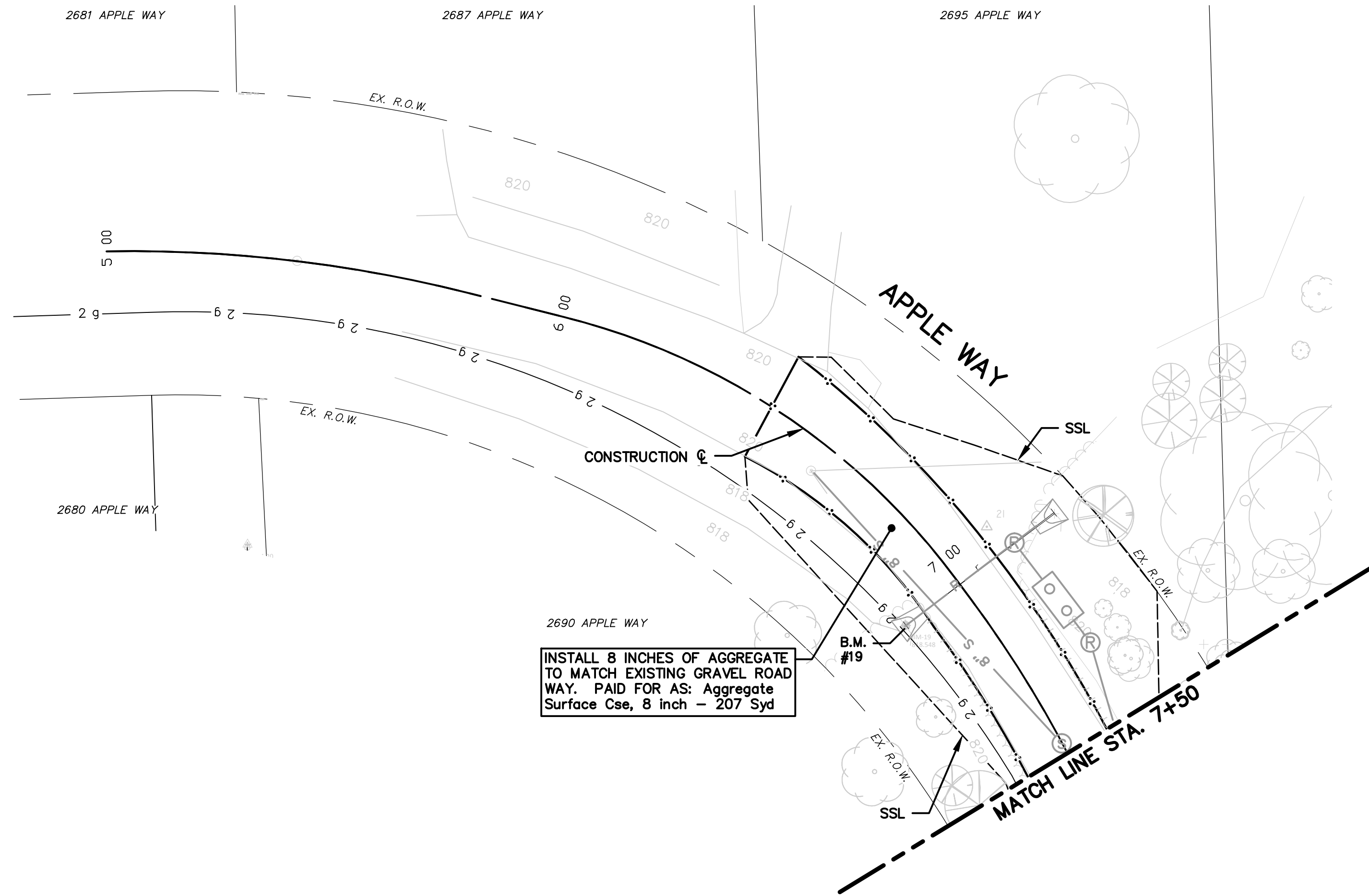
CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
www.a2gov.org

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
ROAD PLAN AND PROFILE
STA. 49+50 TO STA. 51+15 (P.O.E.)

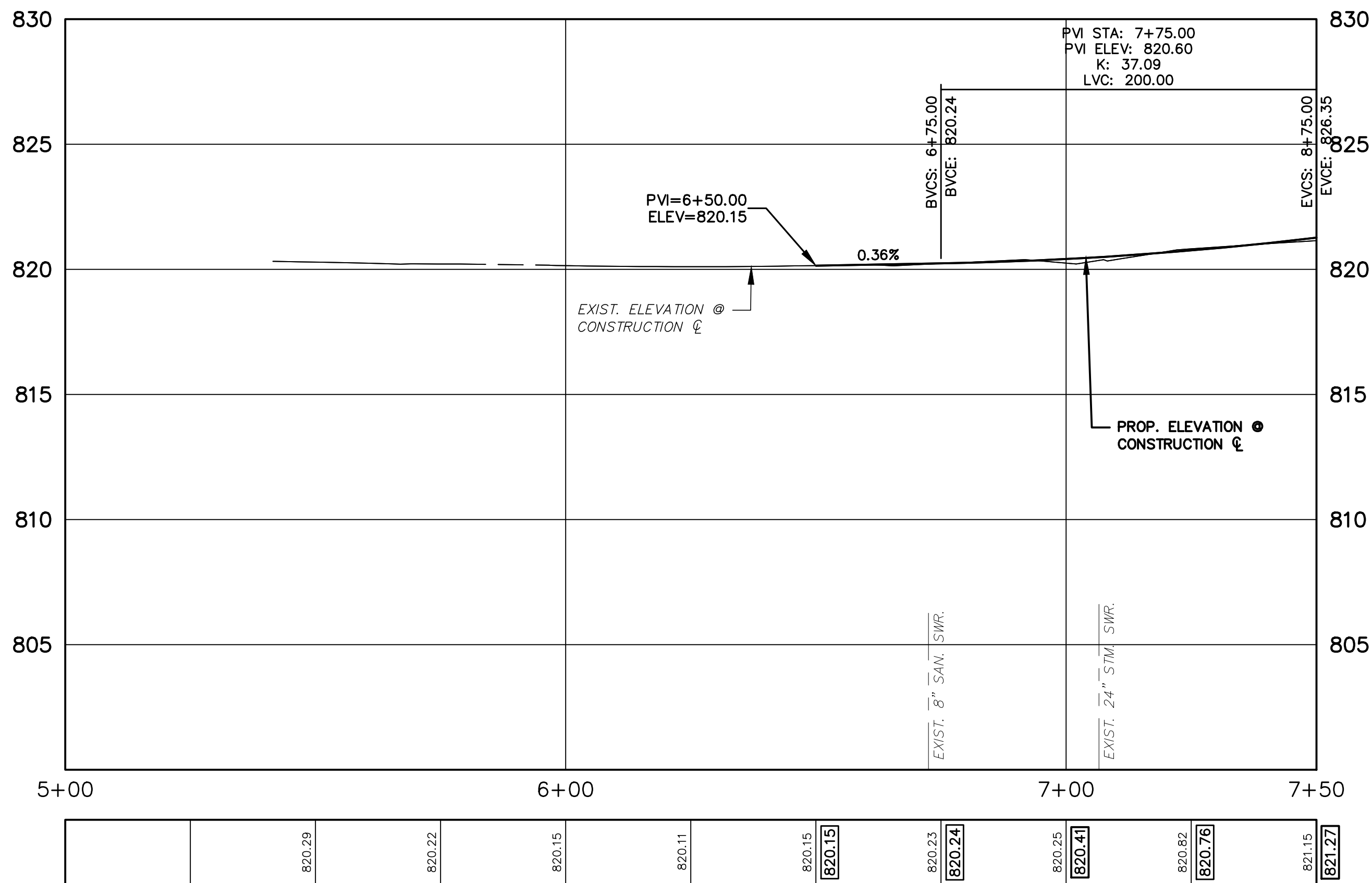
SCALE PLAN: 1"=20'
PROFILE: 1"=4'

DRAWING No. RD-12

SHEET No. 42 OF 187



INSTALL 8 INCHES OF AGGREGATE TO MATCH EXISTING GRAVEL ROAD WAY. PAID FOR AS: Aggregate Surface Cse, 8 inch - 207 Syd



820.29	820.22	820.15	820.11	820.15	820.23	820.24	820.25	820.41	820.82	820.76	821.15	821.27
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CONSTRUCTION NOTES:

1. SEE UTILITY SHEETS FOR STORM SEWER, SANITARY SEWER, INFILTRATION BEDS AND WATER MAIN STRUCTURE AND PIPE REMOVALS AND PLACEMENTS.
2. FOR SIDEWALK AND PAVEMENT REMOVALS, SAWCUT EXISTING MATERIAL FULL-DEPTH AT REMOVAL LIMITS AS DIRECTED BY THE ENGINEER. PAYMENT FOR SAWCUT INCLUDED IN "MACHINE GRADING, MODIFIED. _" AS DETAILED IN THE PLANS AND SPECIFICATIONS.
3. PLACE SIDEWALK AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH PAVING DETAIL SHEETS, GRADING DETAIL SHEETS, AND PROJECT SPECIFICATIONS. SEE PAVING DETAIL SHEETS FOR SIDEWALK JOINT LAYOUT AND OTHER RELEVANT INFORMATION.
4. ALL TREES WITHIN PROJECT LIMITS SHALL BE PROTECTED PER CITY OF ANN ARBOR'S DETAIL AND AS DIRECTED BY THE ENGINEER.

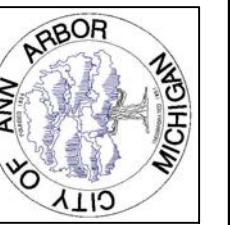
CONSTRUCTION KEY	
HMA	PLACE HMA AS SPECIFIED IN THE APPLICATION TABLE
CG	PLACE BARRIER CURB & GUTTER PER DETAIL.
DO-L	PLACE DRIVEWAY OPENING, CONC, DETAIL L, P-NC
DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, P-NC
DC6	PLACE CONC. DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL, MODIFIED.
DH_	PLACE HMA DRIVE APPROACH AT THE THICKNESS AS SHOWN ON THE PLANS. IF THICKNESS > 3" PLACE IN LIFTS AS DIRECTED BY THE ENGINEER.
SW4	PLACE 4 INCH CONCRETE SIDEWALK AND COMPACT 6 INCH SUBBASE, CIP, CLASS II, GRANULAR MATERIAL
SW6	PLACE 6 INCH CONCRETE SIDEWALK OR RAMP AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL
ADA	PLACE ADA DETECTABLE WARNING, CAST IN PLACE OVER 6 INCH CONCRETE RAMP
ABO	ADJUST BY OTHERS
1	ADJUST GATE VALVE BOX MONUMENT BOX, OR GAS BOX.
2	REMOVE AND REPLACE MDOT TYPE B CASTING, MODIFIED.
3	REMOVE AND REPLACE MDOT TYPE K CASTING, MODIFIED
4	REMOVE STRUCTURE AND REPLACE WITH 2' DIA. DRAINAGE STRUCTURE.
5	POINT STRUCTURE.
6	ADJUST MDOT TYPE B CASTING TO FINISH GRADE.
7	ADJUST MDOT TYPE K CASTING TO FINISH GRADE.
8-	ADDITIONAL DEPTH DRAINAGE STRUCTURE ADJUST /REPAIR AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
9	PLACE MOUNTABLE CURB PER DETAIL.

BENCH MARK INFORMATION		
B.M.#	DESCRIPTION	ELEV.
19	TOP OF SW'LY END OF 24" CMP ON APPLE WAY OPPOSITE HOUSE #2695	818.548



ISSUED FOR BIDS	DATE	BY	CHECKED
FINAL PLAN SUBMITTAL	APR. 22, 2015	ALP/AMN	CEH
FINAL REVIEW SUBMITTAL	MAR. 26, 2015	ALP/AMN	CEH
PRELIMINARY PLAN SUBMITTAL	MAR. 13, 2015	ALP/AMN	CEH
REV.	DESCRIPTION	DATE	DRAWN

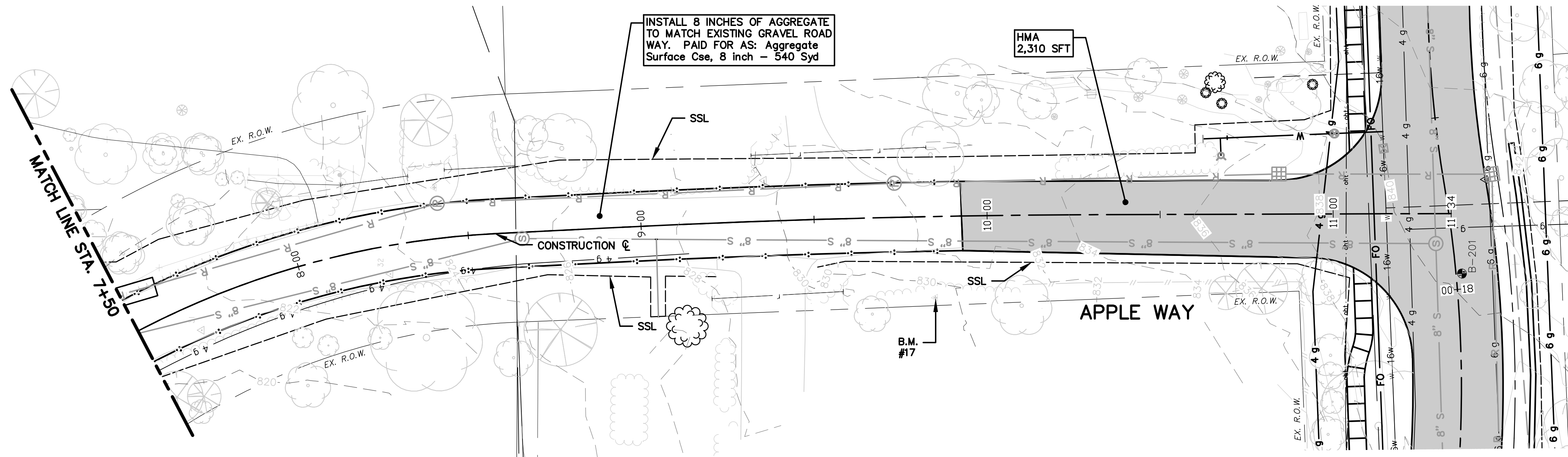
CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
www.a2gov.org



PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
ROAD PLAN AND PROFILE
APPLE WAY STA. 5+00 TO STA. 7+50

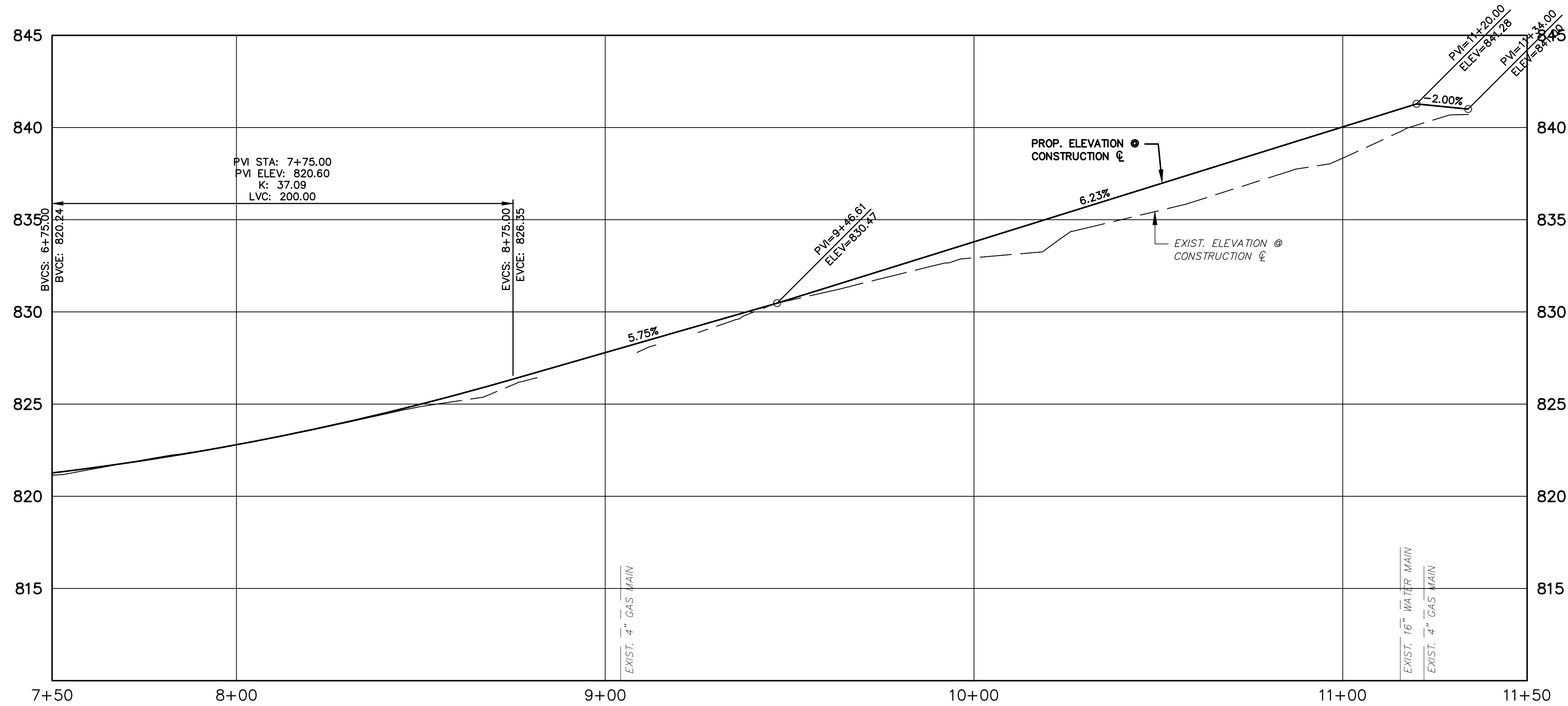
SCALE PLAN: 1"=20'
PROFILE: 1"=4'
DRAWING No. RD-13

SHEET No.



GEDDES AVENUE

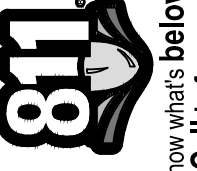
- CONSTRUCTION NOTES:**
- SEE UTILITY SHEETS FOR STORM SEWER, SANITARY SEWER, INFILTRATION BEDS AND WATER MAIN STRUCTURE AND PIPE REMOVALS AND PLACEMENTS.
 - FOR SIDEWALK AND PAVEMENT REMOVALS, SAWCUT EXISTING MATERIAL FULL-DEPTH AT REMOVAL LIMITS AS DIRECTED BY THE ENGINEER. PAYMENT FOR SAWCUT INCLUDED IN "MACHINE GRADING, MODIFIED." AS DETAILED IN THE PLANS AND SPECIFICATIONS.
 - PLACE SIDEWALK AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH PAVING DETAIL SHEETS, GRADING DETAIL SHEETS, AND PROJECT SPECIFICATIONS. SEE PAVING DETAIL SHEETS FOR SIDEWALK JOINT LAYOUT AND OTHER RELEVANT INFORMATION.
 - ALL TREES WITHIN PROJECT LIMITS SHALL BE PROTECTED PER CITY OF ANN ARBOR'S DETAIL AND AS DIRECTED BY THE ENGINEER.



821.15	821.27	821.98	821.95	822.81	822.80	823.79	823.81	824.87	825.00	826.05	826.35	827.78	829.23	830.63	830.68	831.81	832.24	832.94	833.80	834.18	835.36	835.48	836.92	836.96	838.48	838.34	840.03	840.43	841.18
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CONSTRUCTION KEY	
HMA	PLACE HMA AS SPECIFIED IN THE APPLICATION TABLE
CG	PLACE BARRIER CURB & GUTTER PER DETAIL.
DO-L	PLACE DRIVEWAY OPENING, CONC, DETAIL L, P-NC
DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, P-NC
DC6	PLACE CONC. DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL, MODIFIED.
DH-	PLACE HMA DRIVE APPROACH AT THE THICKNESS AS SHOWN ON THE PLANS. IF THICKNESS > 3" PLACE IN LIFTS AS DIRECTED BY THE ENGINEER.
SW4	PLACE 4 INCH CONCRETE SIDEWALK AND COMPACT 6 INCH SUBBASE, CIP, CLASS II, GRANULAR MATERIAL
SW6	PLACE 6 INCH CONCRETE SIDEWALK OR RAMP AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL
ADA	PLACE ADA DETECTABLE WARNING, CAST IN PLACE OVER 6 INCH CONCRETE RAMP
ABO	ADJUST BY OTHERS
1	ADJUST GATE VALVE BOX MONUMENT BOX, OR GAS BOX.
2	REMOVE AND REPLACE MDOT TYPE B CASTING, MODIFIED.
3	REMOVE AND REPLACE MDOT TYPE K CASTING, MODIFIED
4	REMOVE STRUCTURE AND REPLACE WITH 2' DIA. DRAINAGE STRUCTURE.
5	POINT STRUCTURE.
6	ADJUST MDOT TYPE B CASTING TO FINISH GRADE.
7	ADJUST MDOT TYPE K CASTING TO FINISH GRADE.
8-	ADDITIONAL DEPTH DRAINAGE STRUCTURE ADJUST / REPAIR AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
9	PLACE MOUNTABLE CURB PER DETAIL.

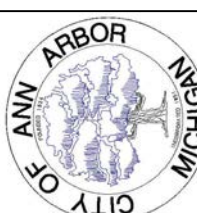
BENCH MARK INFORMATION		
B.M.#	DESCRIPTION	ELEV.
17	SPIKE IN E. SIDE 18" PINE ROOT ON THE W. SIDE OF APPLE WAY AT HOUSE # 2996	830.995
18	HIGHEST POINT ON ROCK ON THE E. SIDE OF APPLE WAY, NEAR S. END AT HOUSE # 2739	826.825



Know what's below.
Call before you dig.


ISSUED FOR BIDS	APR. 22, 2015	ALP/ANN	CEH	CEH	DATE	DRAWN	CHECKED
FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH	CEH			
FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/ANN	CEH	CEH			
PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/ANN	CEH	CEH			
REV.	DESCRIPTION						

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
www.annarbor.org



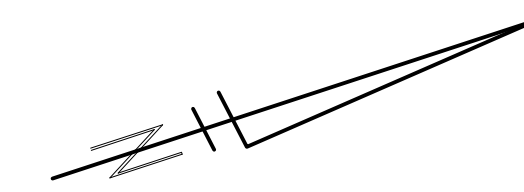
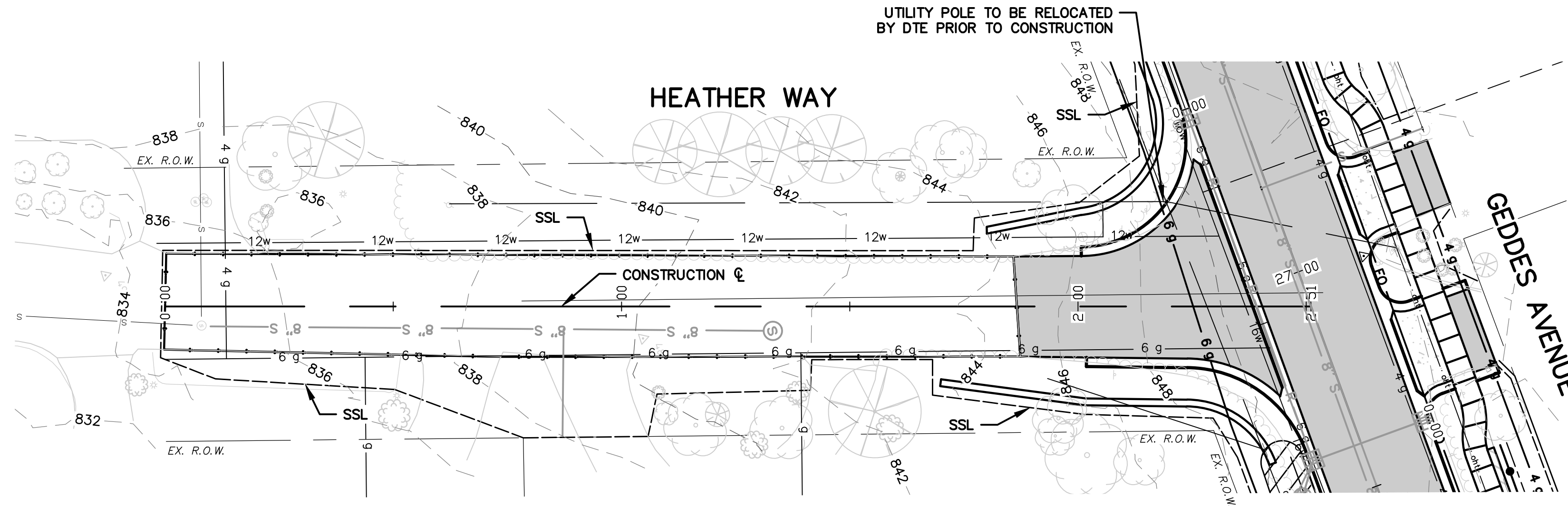
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
ROAD PLAN AND PROFILE
APPLE WAY STA. 7+50 TO STA. 11+19

SCALE PLAN: 1"=20'
PROFILE: 1"=4'



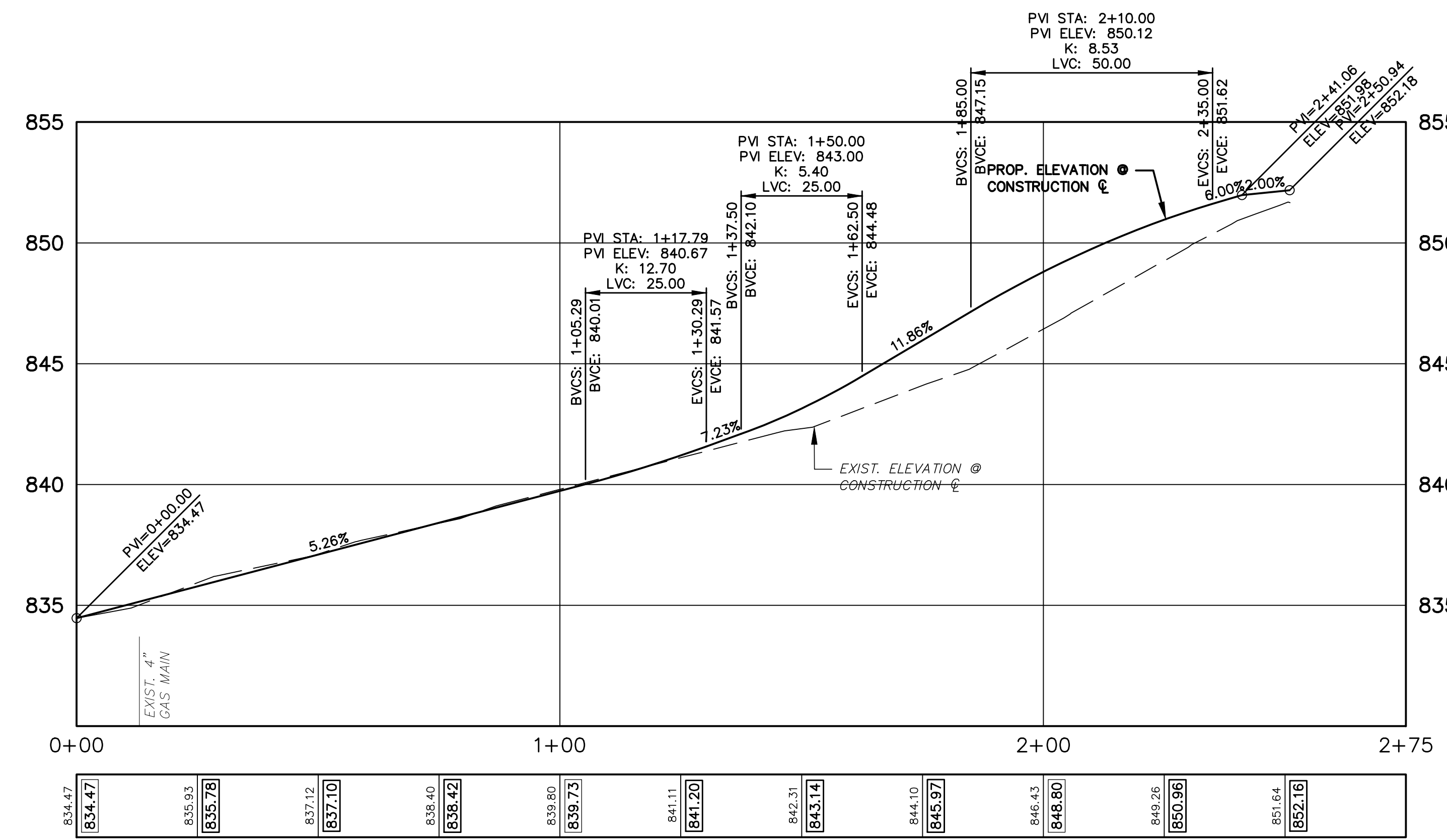
DRAWING No. RD-14

SHEET No. 44 OF 187



CONSTRUCTION NOTES:

1. SEE UTILITY SHEETS FOR STORM SEWER, SANITARY SEWER, INFILTRATION BEDS AND WATER MAIN STRUCTURE AND PIPE REMOVALS AND PLACEMENTS.
2. FOR SIDEWALK AND PAVEMENT REMOVALS, SAWCUT EXISTING MATERIAL FULL-DEPTH AT REMOVAL LIMITS AS DIRECTED BY THE ENGINEER. PAYMENT FOR SAWCUT INCLUDED IN "MACHINE GRADING, MODIFIED. _" AS DETAILED IN THE PLANS AND SPECIFICATIONS.
3. PLACE SIDEWALK AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH PAVING DETAIL SHEETS, GRADING DETAIL SHEETS, AND PROJECT SPECIFICATIONS. SEE PAVING DETAIL SHEETS FOR SIDEWALK JOINT LAYOUT AND OTHER RELEVANT INFORMATION.
4. ALL TREES WITHIN PROJECT LIMITS SHALL BE PROTECTED PER CITY OF ANN ARBOR'S DETAIL AND AS DIRECTED BY THE ENGINEER.



834.47	835.93	837.12	838.40	839.80	841.11	842.31	844.10	846.43	849.26	851.64
834.47	835.78	837.10	838.42	839.73	841.20	843.14	845.97	848.80	850.96	852.16

CONSTRUCTION KEY	
HMA	PLACE HMA AS SPECIFIED IN THE APPLICATION TABLE
CG	PLACE BARRIER CURB & GUTTER PER DETAIL.
DO-L	PLACE DRIVEWAY OPENING, CONC, DETAIL L, P-NC
DO-M	PLACE DRIVEWAY OPENING, CONC, DETAIL M, P-NC
DC6	PLACE CONC, DRIVE APPROACH, NON-REINFORCED, P-NC, 6 INCH. PLACE AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL, MODIFIED.
DH_	PLACE HMA DRIVE APPROACH AT THE THICKNESS AS SHOWN ON THE PLANS. IF THICKNESS > 3" PLACE IN LIFTS AS DIRECTED BY THE ENGINEER.
SW4	PLACE 4 INCH CONCRETE SIDEWALK AND COMPACT 6 INCH SUBBASE, CIP, CLASS II, GRANULAR MATERIAL
SW6	PLACE 6 INCH CONCRETE SIDEWALK OR RAMP AND COMPACT 6 INCH SUBBASE, CIP, CLASS II GRANULAR MATERIAL
ADA	PLACE ADA DETECTABLE WARNING, CAST IN PLACE OVER 6 INCH CONCRETE RAMP
ABO	ADJUST BY OTHERS
1	ADJUST GATE VALVE BOX MONUMENT BOX, OR GAS BOX.
2	REMOVE AND REPLACE MDOT TYPE B CASTING, MODIFIED.
3	REMOVE AND REPLACE MDOT TYPE K CASTING, MODIFIED
4	REMOVE STRUCTURE AND REPLACE WITH 2' DIA. DRAINAGE STRUCTURE.
5	POINT STRUCTURE.
6	ADJUST MDOT TYPE B CASTING TO FINISH GRADE.
7	ADJUST MDOT TYPE K CASTING TO FINISH GRADE.
8_	ADDITIONAL DEPTH DRAINAGE STRUCTURE ADJUST /REPAIR AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
9	PLACE MOUNTABLE CURB PER DETAIL.

BENCH MARK INFORMATION		
B.M.#	DESCRIPTION	ELEV.
17	SPIKE IN E. SIDE 18" PINE ROOT ON THE W. SIDE OF APPLE WAY AT HOUSE # 2996	830.995
18	HIGHEST POINT ON ROCK ON THE E. SIDE OF APPLE WAY, NEAR S. END AT HOUSE # 2739	826.825



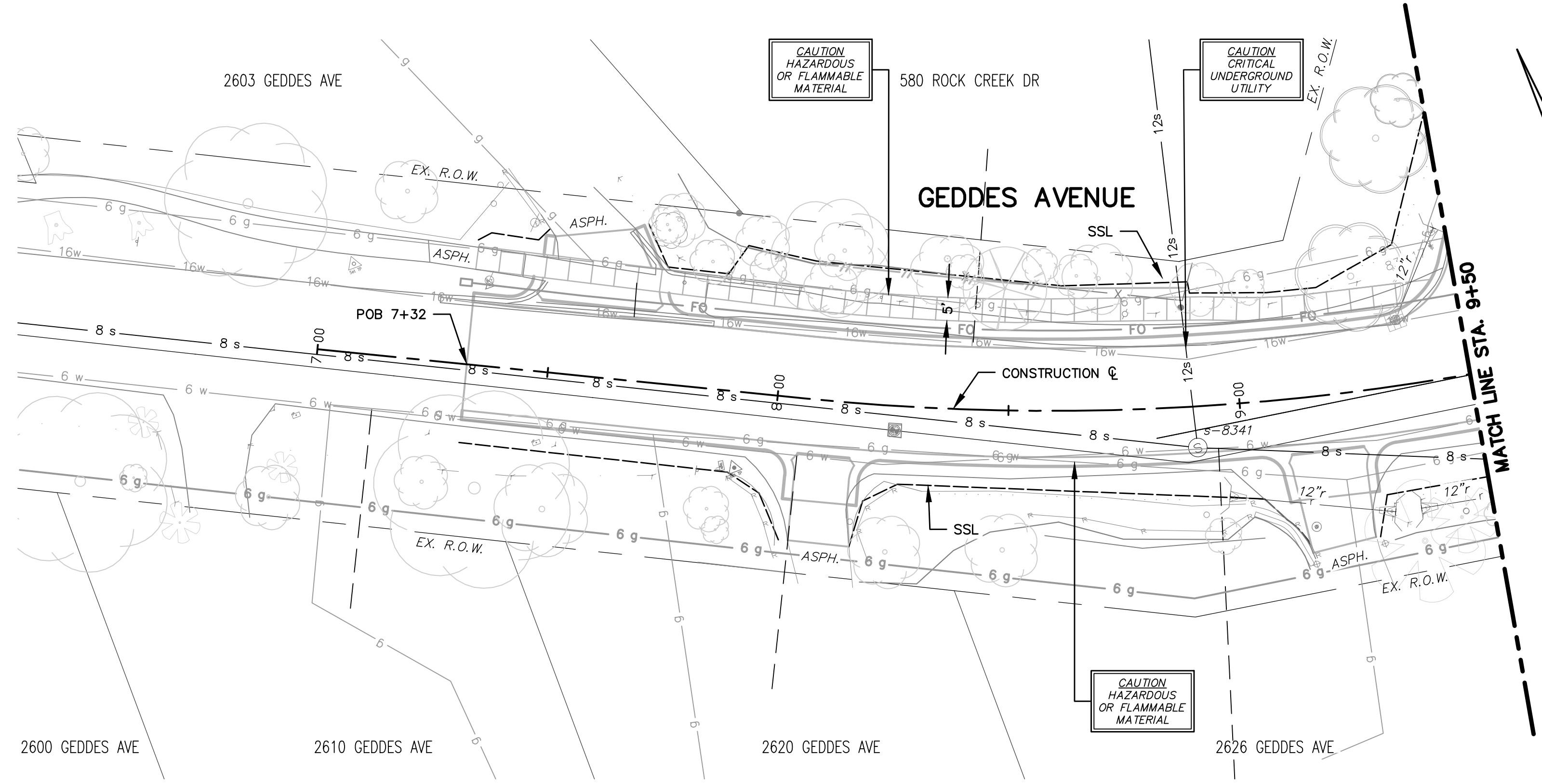
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
	ISSUED FOR BIDS	APR. 22, 2015	ALP/AMN	CEH
	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/AMN	CEH
	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/AMN	CEH
	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/AMN	CEH

CITY OF ANN ARBOR
 PUBLIC SERVICES
 301 EAST HURON STREET
 ANN ARBOR, MI 48107-8647
 www.a2gov.org

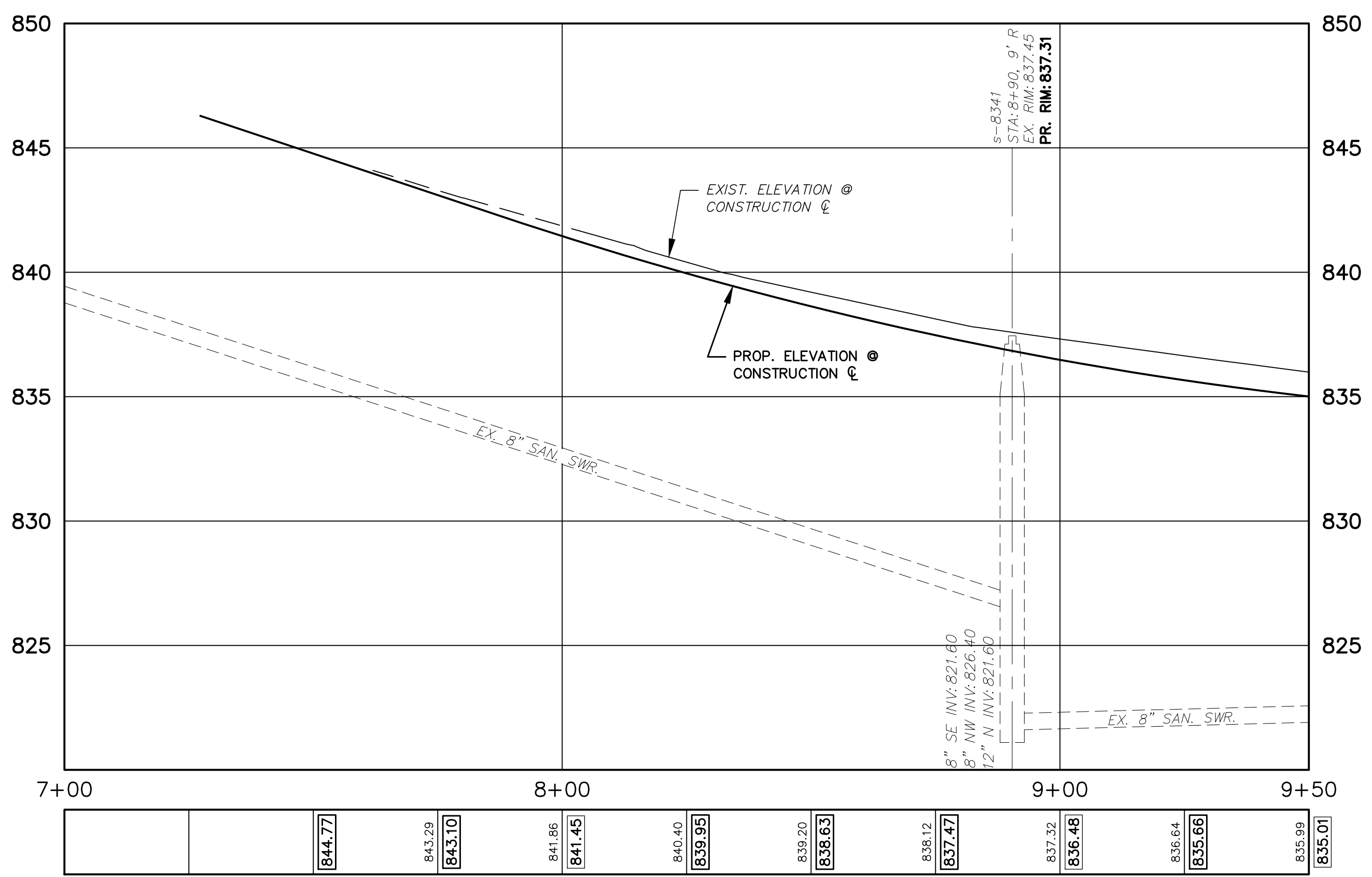


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 GEDES AVENUE IMPROVEMENTS
 ROAD PLAN AND PROFILE
 HEATHER WAY STA. 0+00 (P.O.B.) TO STA. 2+41 (P.O.E.)

SCALE PLAN: 1"=20'
 PROFILE: 1"=4'
 DRAWING No. RD-15
 SHEET No.

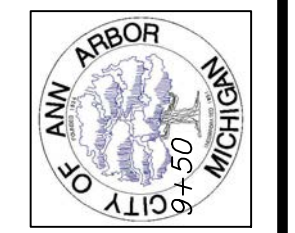


STRUCTURE	CONST. STATION	RIM ELEV.	INVERTS	DEPTH	DETAIL	DIA.	APPL./CONST.
s-8341	8+90	837.45 EX. 838.00 PR.	8" SE 821.60 EX. 8" NW 826.40 EX. 12" N 821.60 EX.	15.85	SD-S-1	48	EX. M.H./STR. ADJ.



ISSUED FOR BIDS	DATE	DRAWN	CHECKED
FINAL PLAN SUBMITTAL	APR. 22, 2015	ALP/MN	CEH
FINAL REVIEW SUBMITTAL	MAR. 26, 2015	ALP/MN	CEH
PRELIMINARY PLAN SUBMITTAL	MAR. 13, 2015	ALP/MN	CEH
REV.	JAN. 29, 2015	ALP/MN	CEH

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
www.a2gov.org



PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
SANITARY PLAN AND PROFILE
CONSTRUCTION LINE STA. 7+32 (P.O.B.) TO STA.

SCALE PLAN: 1"=20'
PROFILE: 1"=4'
DRAWING No. SAN-01



Know what's below. Call before you dig.

CEH
ALP/ANN
CEH
CEH

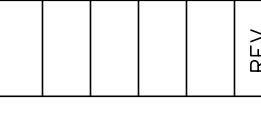
APR. 22, 2015
MAR. 26, 2015
MAR. 13, 2015
JAN. 29, 2015

ISSUED FOR BIDS
FINAL PLAN SUBMITTAL
FINAL REVIEW SUBMITTAL
PRELIMINARY PLAN SUBMITTAL

REV. DESCRIPTION
DATE

DRAWN

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
www.a2gov.org

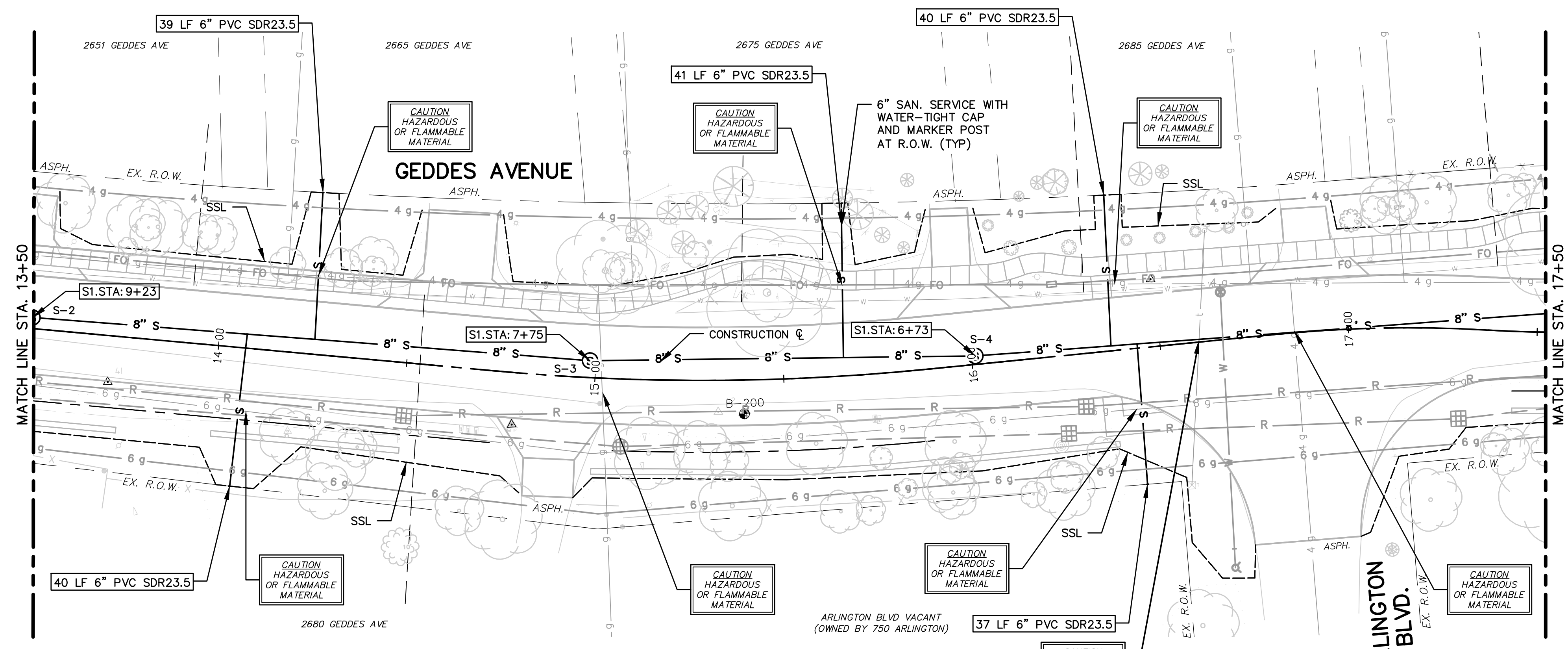


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
SANITARY SEWER PLAN AND PROFILE
CONSTRUCTION STA. 13+50 TO STA. 17+50

SCALE PLAN: 1"=20'
PROFILE: 1"=4'

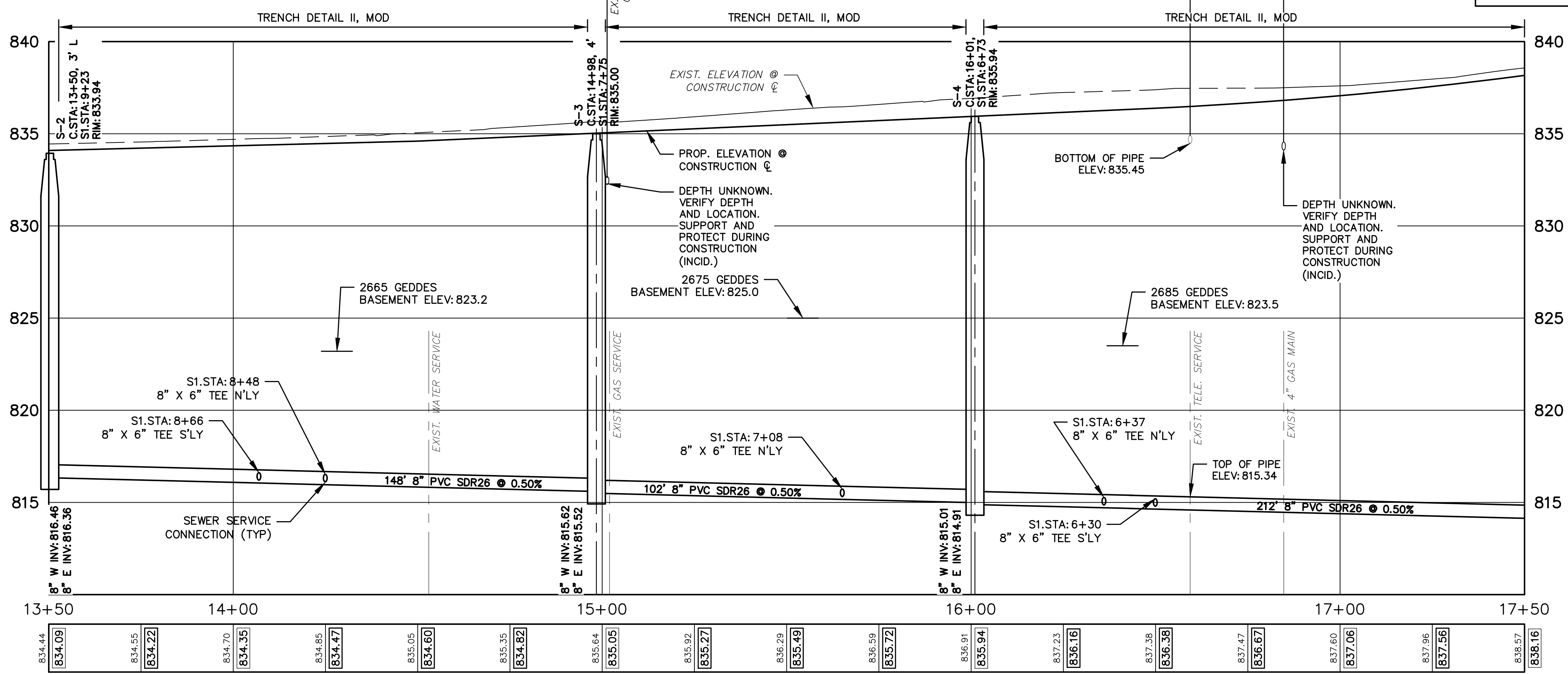
DRAWING No. SAN-03

SHEET No. 48 OF 187

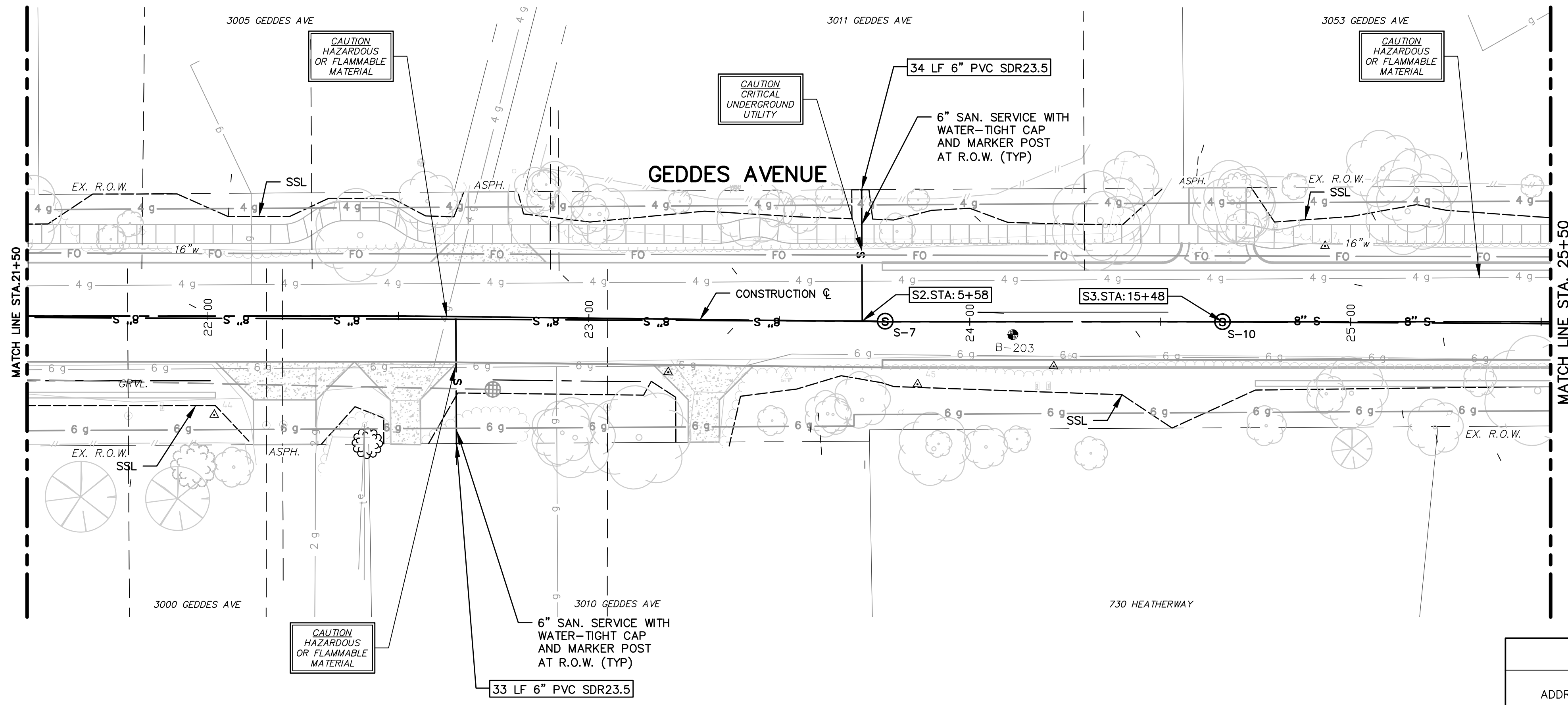


STRUCTURE	STATION	SEWER STATION	RIM ELEV.	INVERTS	DEPTH	DIA.	DETAIL	APPL./CONST.
S-2	13+50	S1 9+23	833.94	8" W 816.46 8" E 816.36	17.73	48	SD-S-1	NEW M.H.
S-3	14+98	S1 7+75	835.00	8" W 815.62 8" E 815.52	19.58	48	SD-S-1	NEW M.H.
S-4	16+01	S1 6+73	835.94	8" W 815.01 8" E 814.91	21.13	48	SD-S-1	NEW M.H.

ADDRESS	LEAD ELEV. AT R.O.W.	SEWER STATION	SIZE (INCHES)	LENGTH (FT)	SLOPE	D/S M.H.	DIST. FROM D/S M.H.	RISER HEIGHT	CONNECT. TYPE
ARLINGTON BLVD	829.00	S1 6+30	6	37	1.00%	S-5	169	13.9	TEE
2685 GEDDES AVE	819.60	S1 6+37	6	40	1.00%	S-5	176	4.5	TEE
2675 GEDDES AVE	821.30	S1 7+08	6	41	1.00%	S-4	35	5.7	TEE
2665 GEDDES AVE	819.50	S1 8+48	6	39	1.00%	S-3	73	3.1	TEE
2680 GEDDES AVE	825.90	S1 8+66	6	40	1.00%	S-3	91	9.4	TEE

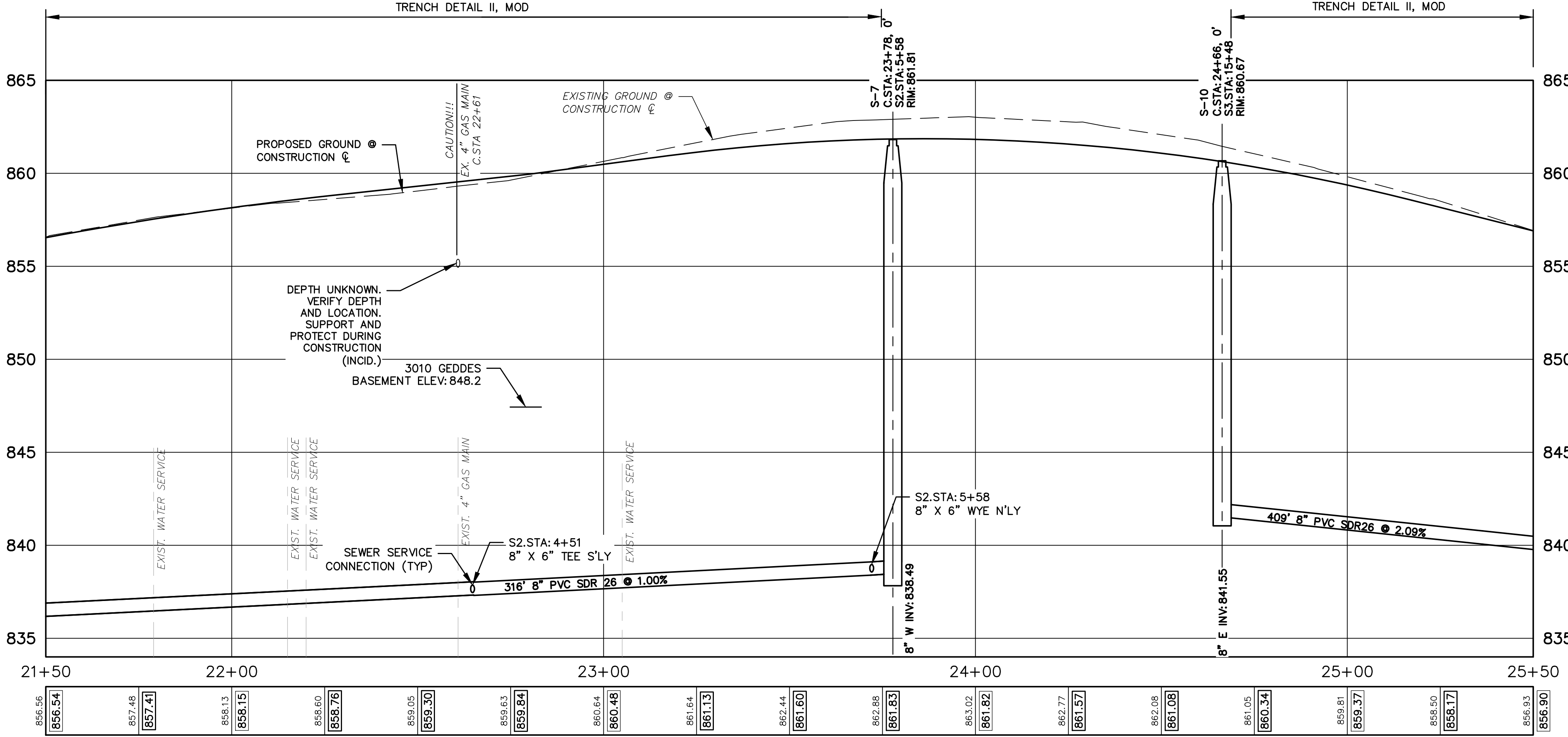


- SANITARY SEWER NOTES:**
1. NEW SANITARY SEWER SHALL CONSIST OF ASTM D3034 SOLID WALL PVC SDR26 PIPE WITH WATER-TIGHT GASKETED JOINTS, CLASS B STONE BEDDING (UP TO 12" ABOVE TOP OF PIPE) AND COMPACTED SAND BACKFILL. DEFLECTION OF PVC PIPE AFTER INSTALLATION AND BACKFILL SHALL NOT EXCEED 5.0% OF THE PIPE DIAMETER.
 2. MANUFACTURED TEES SHALL BE USED AT ALL SERVICE CONNECTIONS WITH RISERS AND MANUFACTURED WYES SHALL BE USED AT ALL SERVICE CONNECTIONS WITHOUT RISERS.
 3. NEW SANITARY SERVICES SHALL CONSIST OF PVC SDR23.5 PIPE WITH WATER-TIGHT GASKETED JOINTS, STONE BEDDING AND BACKFILLED WITH COMPACTED SAND BACKFILL.
 4. TERMINATE NEW SANITARY SERVICES WITH A WATER-TIGHT PLUG AND 2" X 2" HARDWOOD MARKER AS REQUIRED BY SPECIFICATIONS.
 5. PROVIDE EARTH RESTRAINT AND TRENCH SUPPORT AS NEEDED TO PROTECT ADJOINING UTILITIES AND STRUCTURES FROM SETTLEMENT OR DAMAGE DURING CONSTRUCTION.
 6. PROVIDE ALL NECESSARY SUPPORT TO PROTECT UTILITIES CROSSING THE TRENCH DURING CONSTRUCTION. METHODS OF SUPPORT SHALL BE APPROVED BY UTILITY OWNER.
 7. PROVIDE DEWATERING AS NEEDED TO MAINTAIN DRY AND STABLE TRENCH BOTTOM (INCIDENTAL TO PIPE BEING INSTALLED).



STRUCTURE	STATION	SEWER STATION	RIM ELEV.	INVERTS	DEPTH	DIA.	DETAIL	APPL./CONST.
S-7	23+78	S2 5+58	861.81	8" W 838.49	23.48	48	SD-S-1	NEW M.H.
S-10	24+66	S3 15+48	860.67	8" E 841.55	19.12	48	SD-S-1	NEW M.H.

ADDRESS	LEAD ELEV. AT R.O.W.	SEWER STATION	SIZE (INCHES)	LENGTH (FT)	SLOPE	D/S M.H.	DIST. FROM D/S M.H.	RISER HEIGHT	CONNECT. TYPE
3011 GEDDES AVE	839.80	S2 5+58	6	34	1.00%	S-6	310	1.0	WYE
3010 GEDDES AVE	844.10	S2 4+51	6	33	1.00%	S-6	204	7.1	TEE



- SANITARY SEWER NOTES:**
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REV.	DESCRIPTION	DATE	DRAWN	CHECKED
	ISSUED FOR BIDS	APR. 22, 2015	ALP/AMN	CEH
	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/AMN	CEH
	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/AMN	CEH
	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/AMN	CEH

CITY OF ANN ARBOR
PUBLIC SERVICES
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ANN ARBOR, MI 48107-8647
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
SANITARY SEWER PLAN AND PROFILE
CONSTRUCTION STA. 21+50 TO STA. 25+50

SCALE PLAN: 1"=20'
PROFILE: 1"=4'
DRAWING No. SAN-05



CEH
ALP/ANN
APR. 22, 2015

CEH
ALP/ANN
MAR. 26, 2015

CEH
ALP/ANN
MAR. 13, 2015

CEH
ALP/ANN
JAN. 29, 2015

BRANN
DATE

ISSUED FOR BIDS

FINAL PLAN SUBMITTAL

FINAL REVIEW SUBMITTAL

PRELIMINARY PLAN SUBMITTAL

REV. DESCRIPTION

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

GEDES AVENUE IMPROVEMENTS

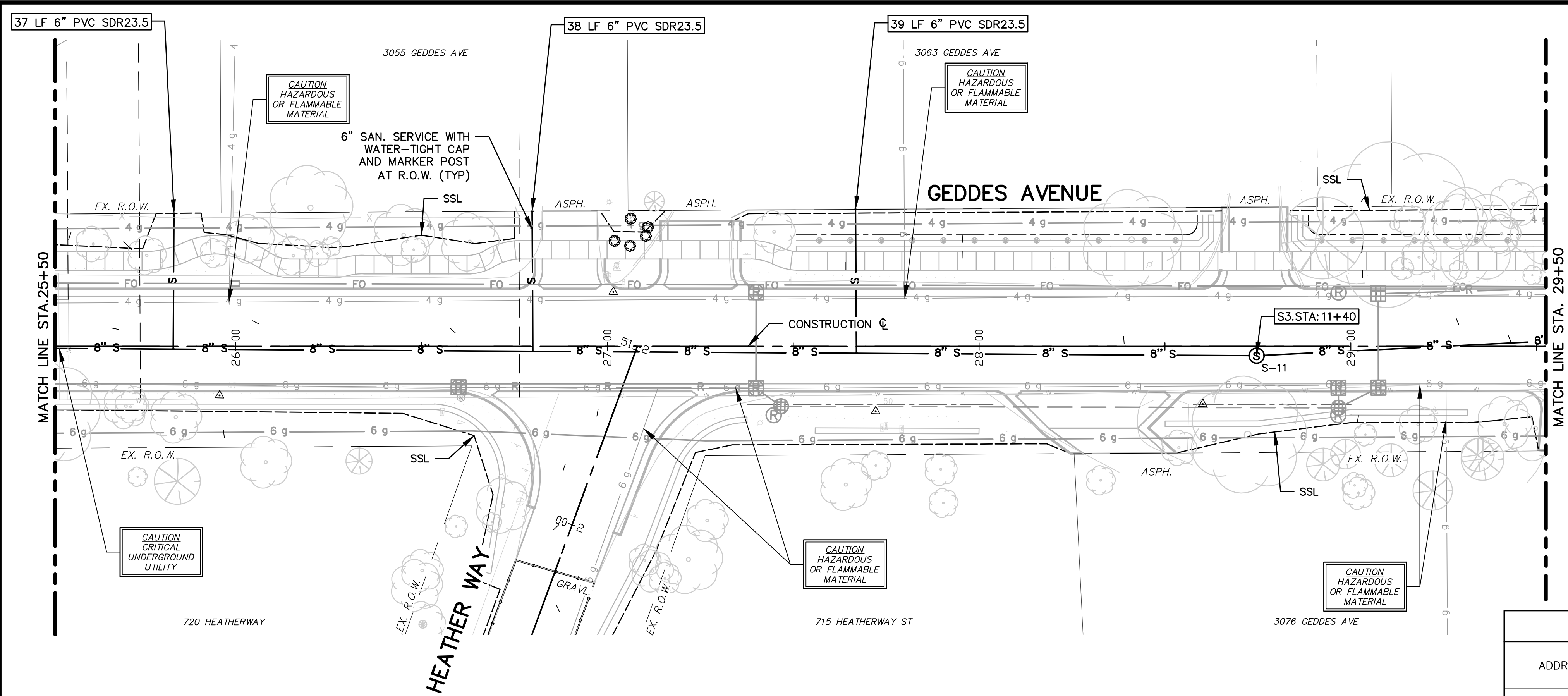
SANITARY SEWER PLAN AND PROFILE

CONSTRUCTION STA. 25+50 TO STA. 29+50

DRAWING No. SAN-06

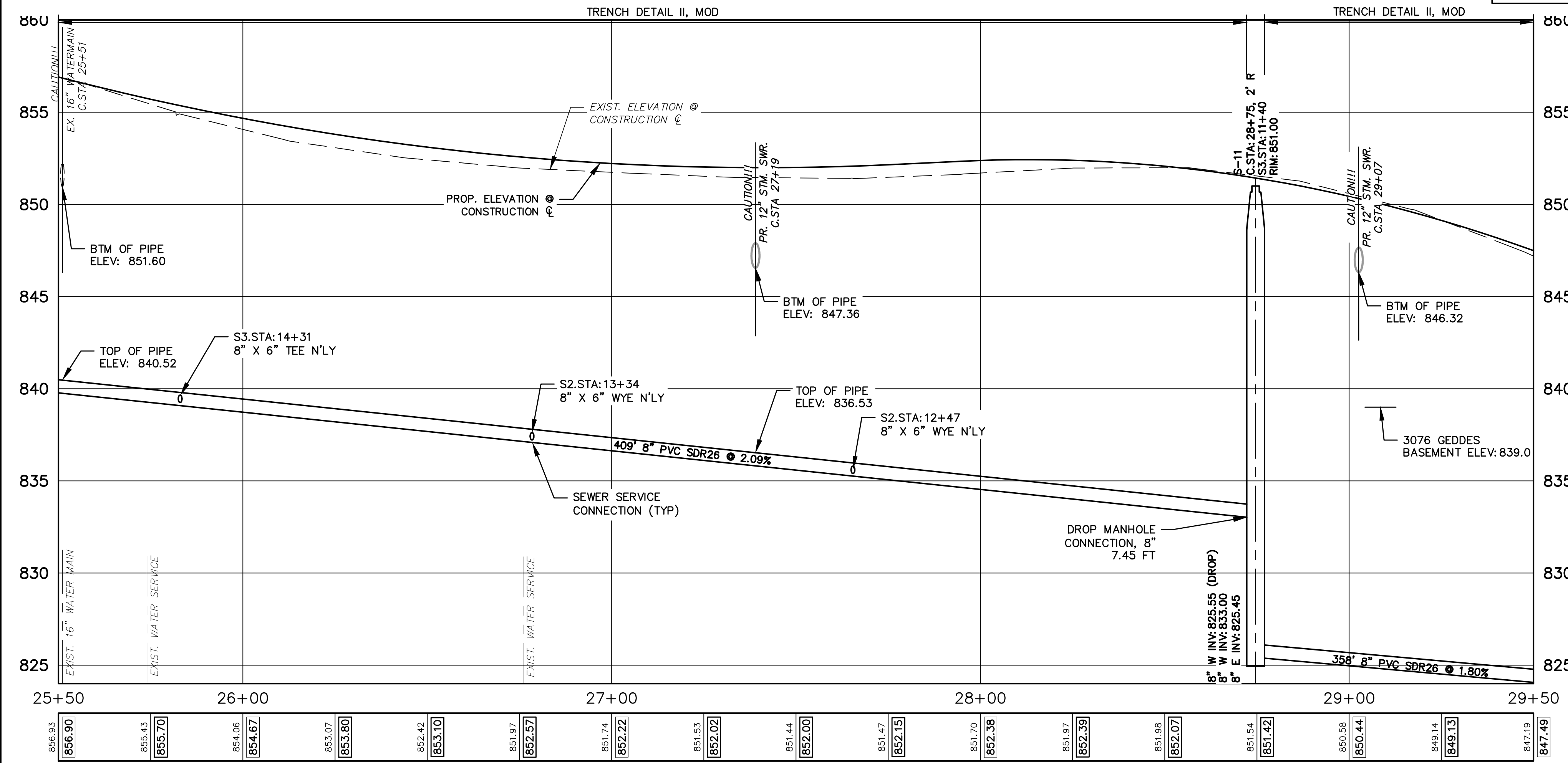
SHEET No.

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STRUCTURE	STATION	SEWER STATION	RIM ELEV.	INVERTS	DEPTH	DIA.	DETAIL	APPL./CONST.
S-11	28+75	S3 11+40	851.00	8" W 833.00 8" E 825.45	25.55	48 60	SD-S-1	NEW M.H.

ADDRESS	LEAD ELEV. AT R.O.W.	SEWER STATION	SIZE (INCHES)	LENGTH (FT)	SLOPE	D/S M.H.	DIST. FROM D/S M.H.	RISER HEIGHT	CONNECT. TYPE
3063 GEDES AVE	847.10	S3 12+47	6	39	1.00%	S-11	108	11.6	TEE
3055 GEDES AVE	851.40	S3 13+34	6	38	1.00%	S-11	195	14.0	TEE
3053 GEDES AVE	848.10	S3 14+31	6	37	0.99%	S-11	291	8.0	TEE



- SANITARY SEWER NOTES:**
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CEH
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CEH

APR. 22, 2015
MAR. 26, 2015
MAR. 13, 2015
JAN. 29, 2015

ISSUED FOR BIDS
FINAL PLAN SUBMITTAL
FINAL REVIEW SUBMITTAL
PRELIMINARY PLAN SUBMITTAL

DATE
DATE
DATE
DATE

DRAWN
CHECKED

REV.

DESCRIPTION

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
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CITY OF ANN ARBOR
MICHOIGAN

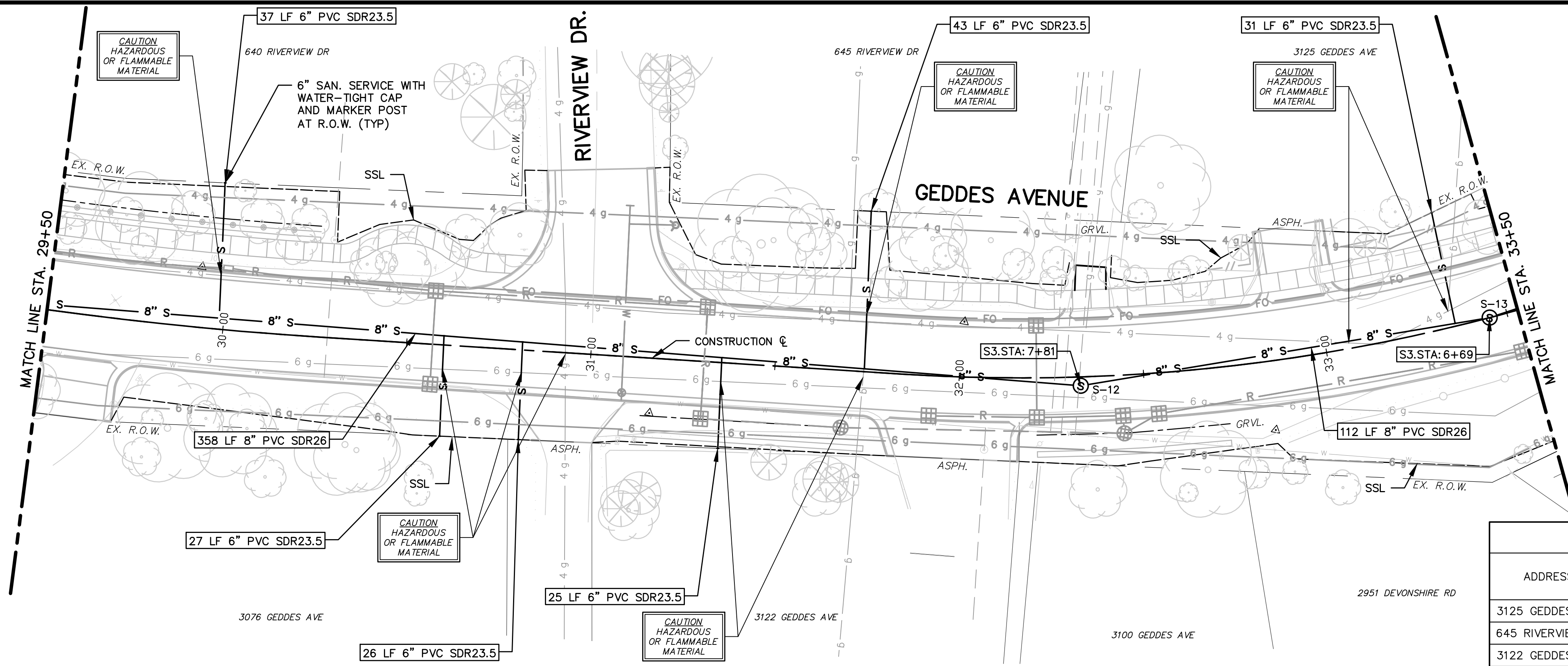
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDES AVENUE IMPROVEMENTS
SANITARY SEWER PLAN AND PROFILE
CONSTRUCTION STA. 29+50 TO STA. 33+50

SCALE PLAN: 1"=20'
PROFILE: 1"=4'

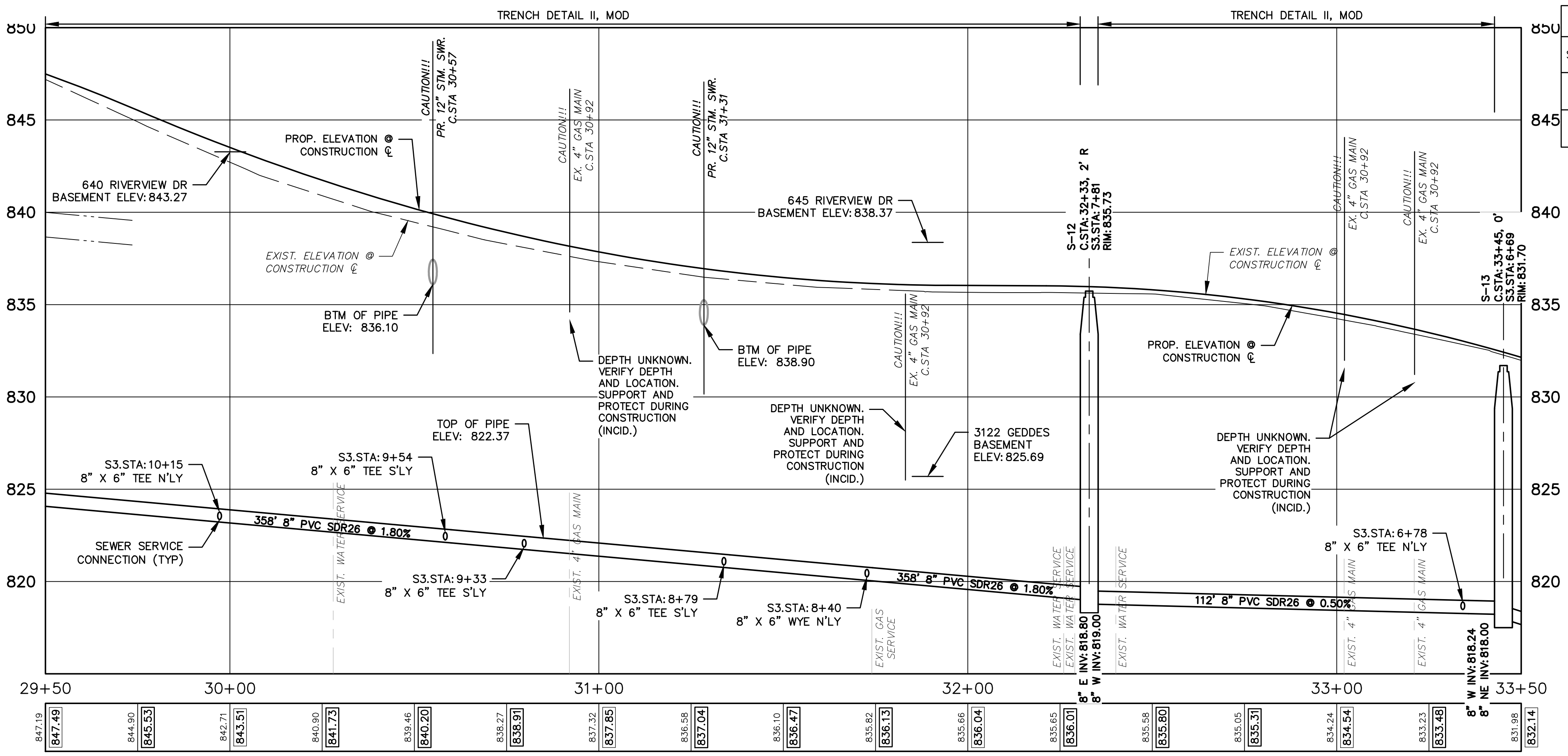
DRAWING No. SAN-07

SHEET No.

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ADDRESS	LEAD ELEV. AT R.O.W.	SEWER STATION	SIZE (INCHES)	LENGTH (FT)	SLOPE	D/S M.H.	DIST. FROM D/S M.H.	RISER HEIGHT	CONNECT. TYPE
3125 GEDES AVE	825.00	S3 6+78	6	31	1.00%	S-13	9	9.6	TEE
645 RIVERVIEW DR	829.80	S3 8+40	6	43	1.00%	S-12	58	9.3	TEE
3122 GEDES AVE	821.70	S3 8+79	6	25	1.00%	S-12	97	0.7	WYE
3090 GEDES AVE	827.10	S3 9+33	6	26	1.00%	S-12	151	5.1	TEE
3076 GEDES AVE	828.20	S3 9+54	6	27	1.00%	S-12	173	5.8	TEE
640 RIVERVIEW DR	838.30	S3 10+15	6	37	1.00%	S-12	234	14.7	TEE



STRUCTURE	STATION	SEWER STATION	RIM ELEV.	INVERTS	DEPTH	DIA.	DETAIL	APPL./CONST.
S-12	32+33	S3 7+81	835.73	8" E 818.80 8" W 819.00	16.93	48	SD-S-1	NEW M.H.
S-13	33+45	S3 6+69	831.70	8" W 818.24 8" NE 818.00	13.70	48	SD-S-1	NEW M.H.

- SANITARY SEWER NOTES:**
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Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	APR. 22, 2015	ALP/ANN	CEH
	FINAL REVIEW SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH
	PRELIMINARY PLAN SUBMITTAL	MAR. 13, 2015	ALP/ANN	CEH
		JAN. 29, 2015	ALP/ANN	CEH

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
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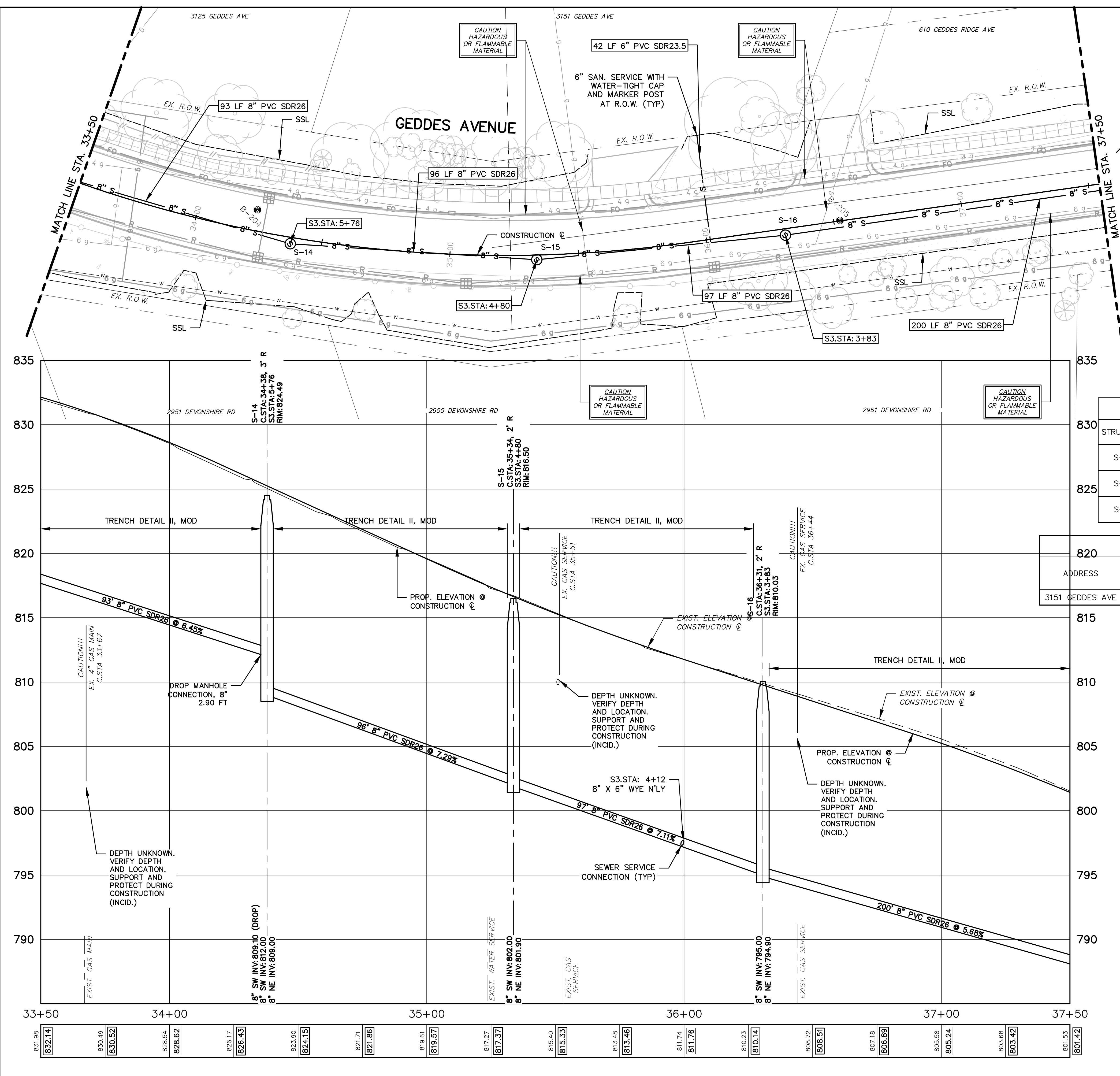


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
SANITARY SEWER PLAN AND PROFILE
CONSTRUCTION STA. 33+50 TO STA. 37+50

SCALE PLAN: 1"=20'
PROFILE: 1"=4'

DRAWING No. SAN-08

SHEET No.



STRUCTURE	STATION	SEWER STATION	RIM ELEV.	INVERTS	DEPTH	DIA.	DETAIL	APPL./CONST.
S-14	34+38	S3 5+76	824.49	8" SW 812.00 8" NE 809.00	15.49	48	SD-S-1	NEW M.H.
S-15	35+34	S3 4+80	816.50	8" SW 802.00 8" NE 801.90	14.60	48	SD-S-1	NEW M.H.
S-16	36+31	S3 3+83	810.03	8" SW 795.00 8" NE 794.90	15.13	48	SD-S-1	NEW M.H.

ADDRESS	LEAD ELEV. AT R.O.W.	SEWER STATION	SIZE (INCHES)	LENGTH (FT)	SLOPE	D/S M.H.	DIST. FROM D/S M.H.	RISER HEIGHT	CONNECT. TYPE
3151 GEDDES AVE	801.50	S3 4+12	6	42	1.00%	S-16	29	4.1	TEE

- SANITARY SEWER NOTES:**
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831.98	832.14	830.49	830.52	828.54	828.62	826.17	826.43	823.90	824.15	821.71	821.86	819.61	819.57	817.27	817.37	815.40	815.33	813.48	813.46	811.74	811.76	810.23	810.14	808.72	808.51	807.18	806.89	805.58	805.24	803.66	803.42	801.53	801.42
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MAR. 26, 2015

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ALP/ANN
MAR. 13, 2015

CEH
ALP/ANN
JAN. 29, 2015

BRANN
DATE

ISSUED FOR BIDS

FINAL PLAN SUBMITTAL

FINAL REVIEW SUBMITTAL

PRELIMINARY PLAN SUBMITTAL

REV. DESCRIPTION

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

GEDDES AVENUE IMPROVEMENTS

SANITARY SEWER PLAN AND PROFILE

CONSTRUCTION STA. 37+50 TO STA. 41+50

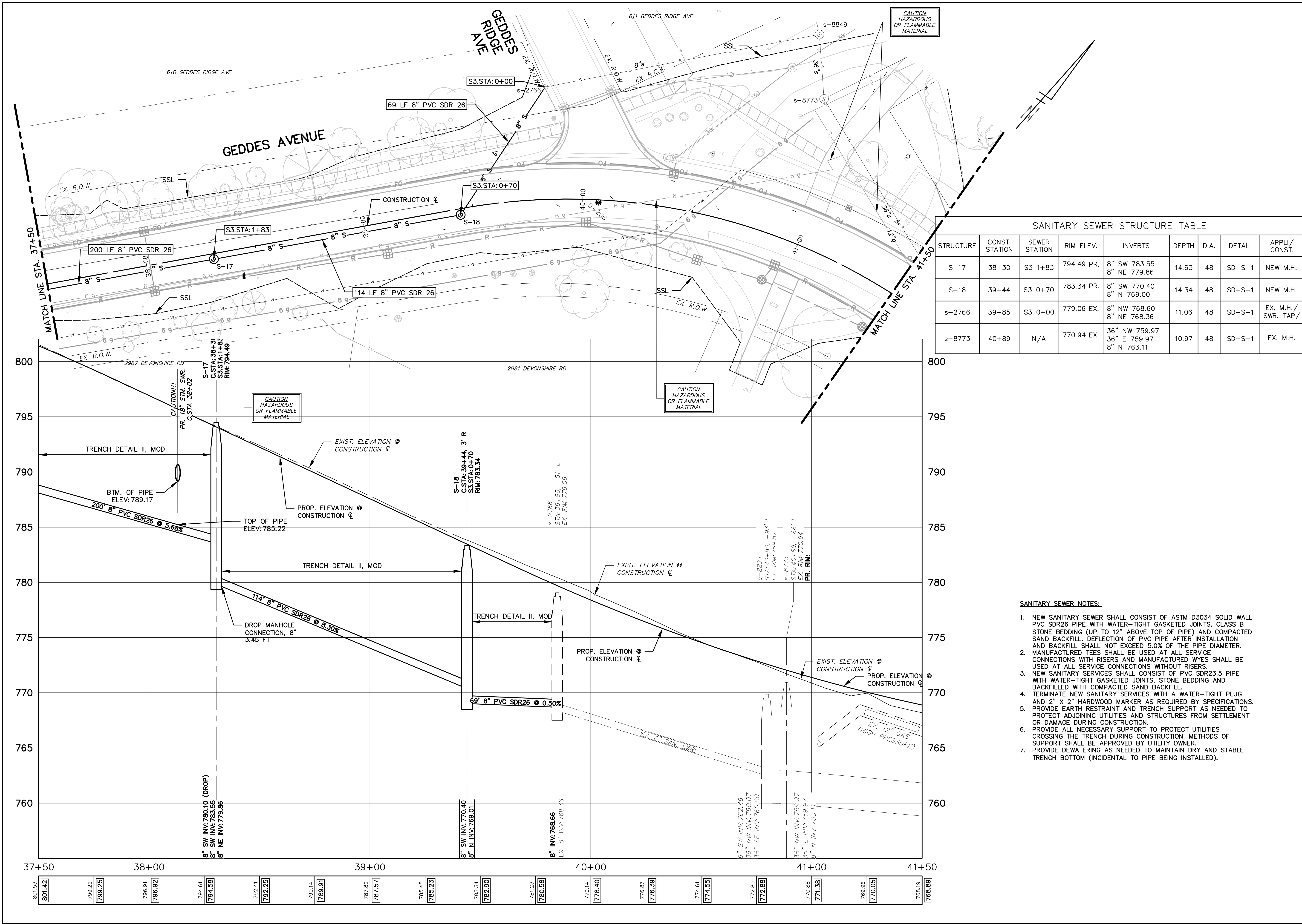
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SHEET No.

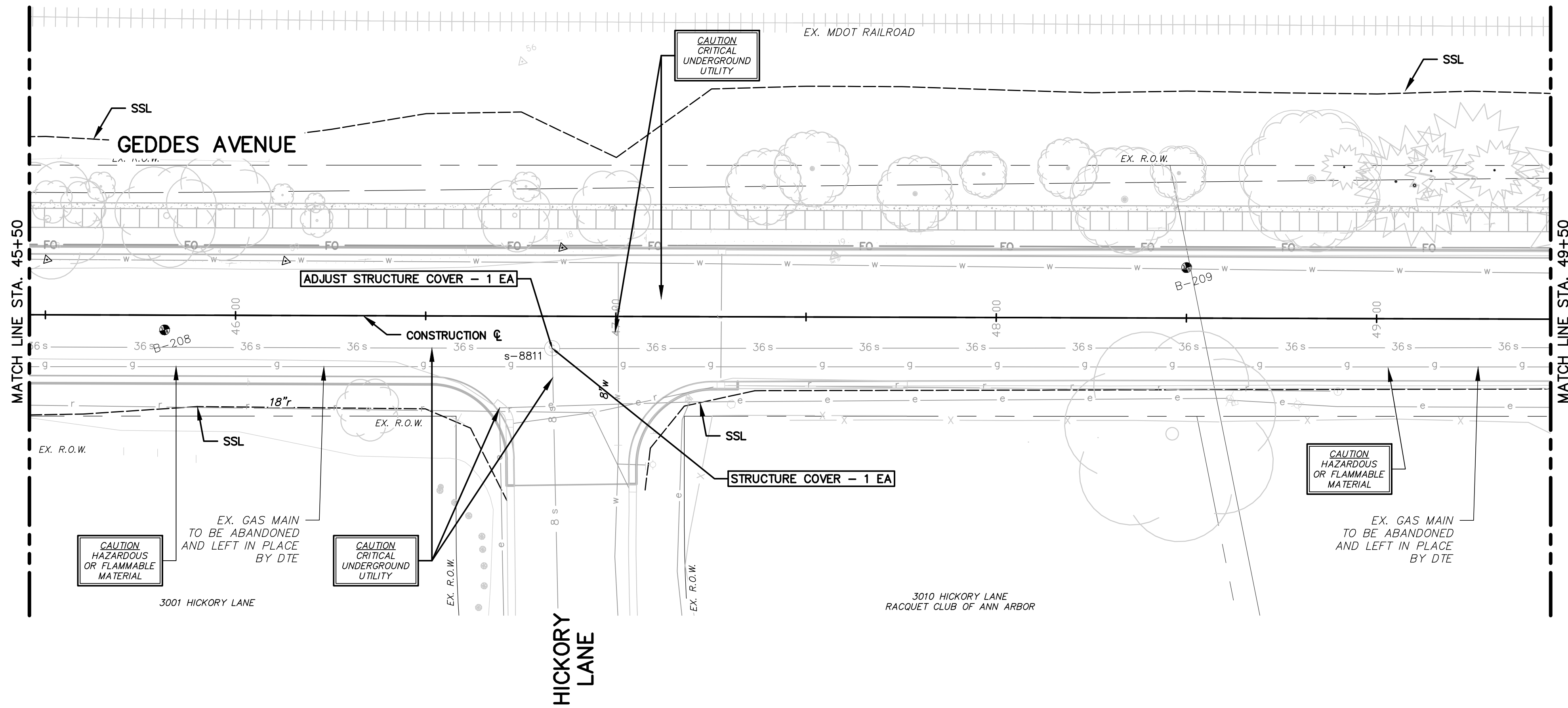
SCALE PLAN: 1"=20'

PROFILE: 1"=4'

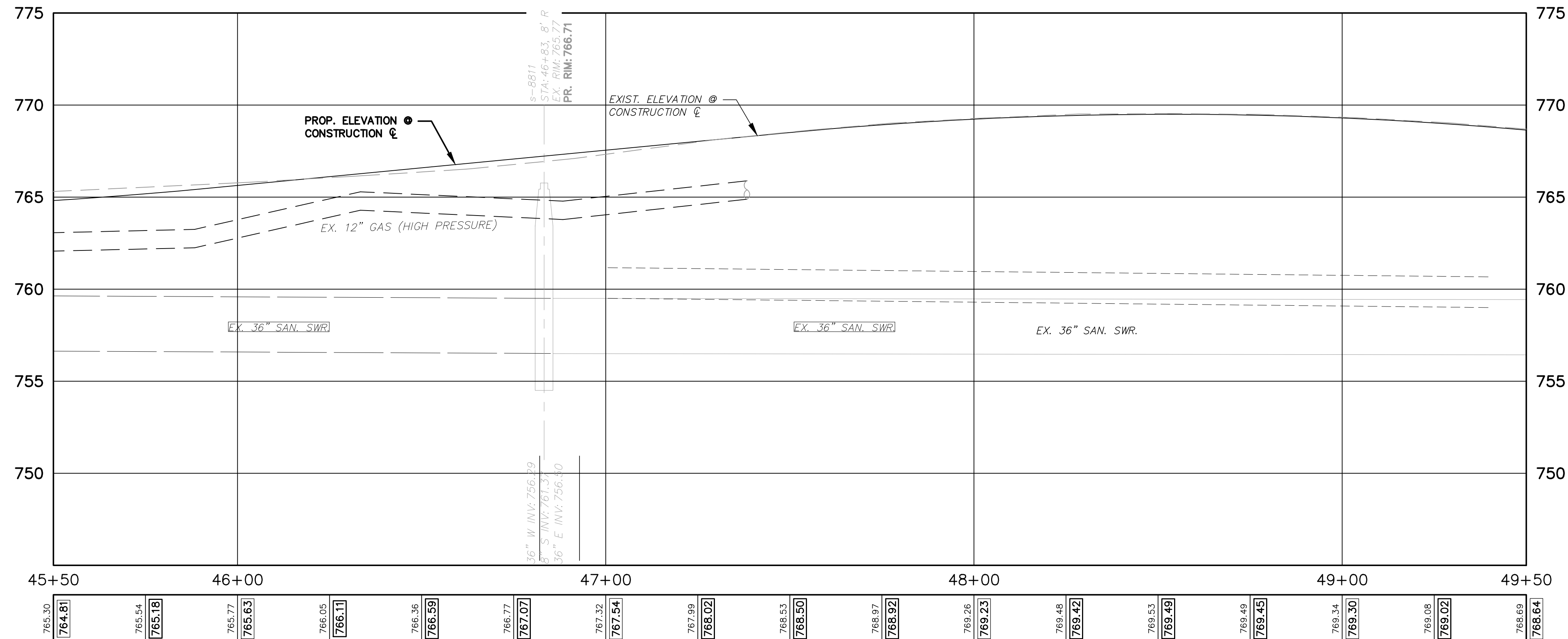
54 OF 187



- SANITARY SEWER NOTES:**
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STRUCTURE	STATION	SEWER STATION	RIM ELEV.	INVERTS	DEPTH	DIA.	DETAIL	APPL./CONST.
s-8811	46+83	N/A	765.77	36" W 756.29 8" S 761.37 36" E 756.50	10.77	48	SD-S-1	EX. M.H./STR. ADJ.

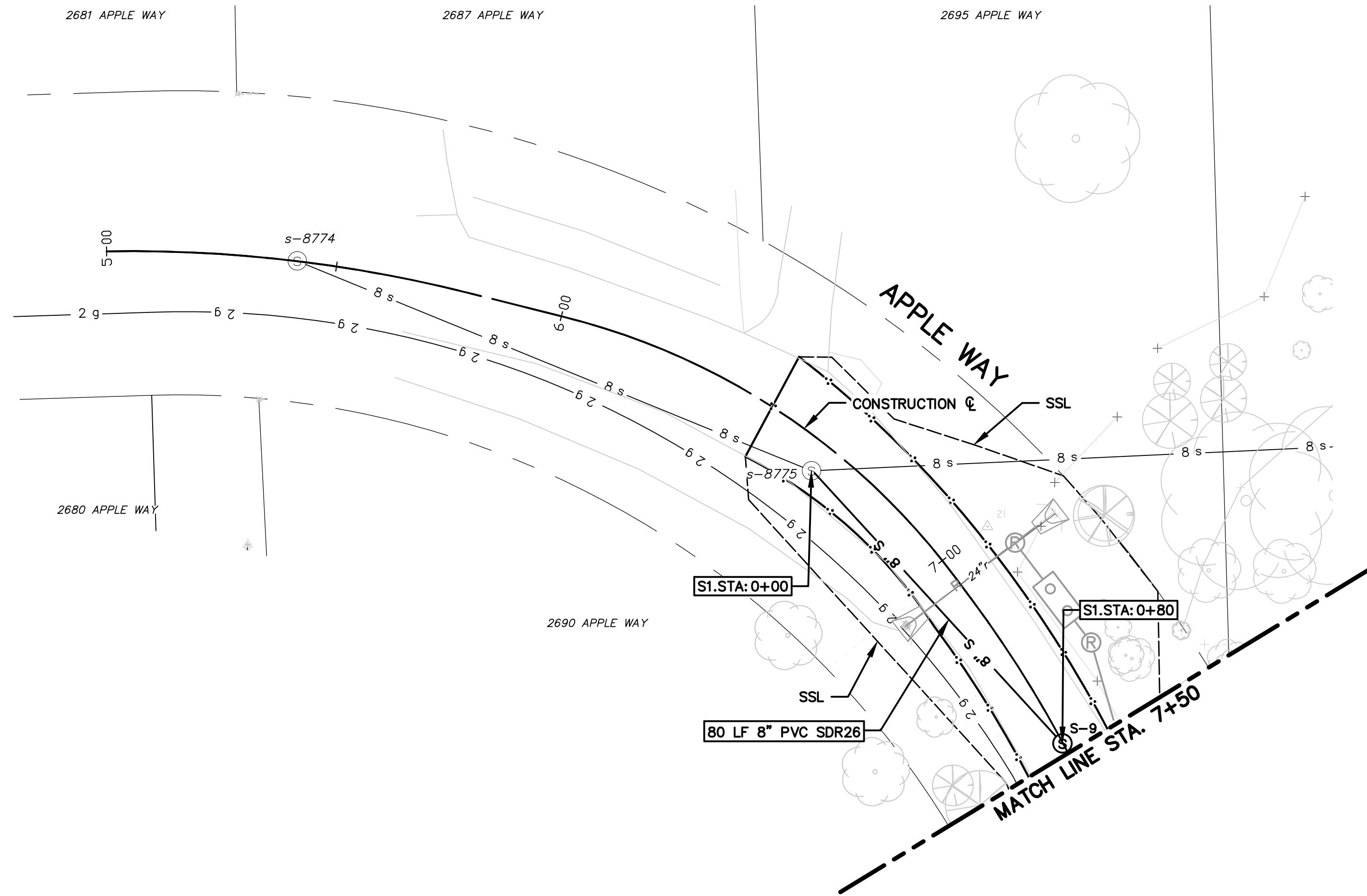


REV.	DESCRIPTION	DATE	DRAWN	CHECKED
1	ISSUED FOR BIDS	APR. 22, 2015	ALP/MIN	CEH
2	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/MIN	CEH
3	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/MIN	CEH
4	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/MIN	CEH

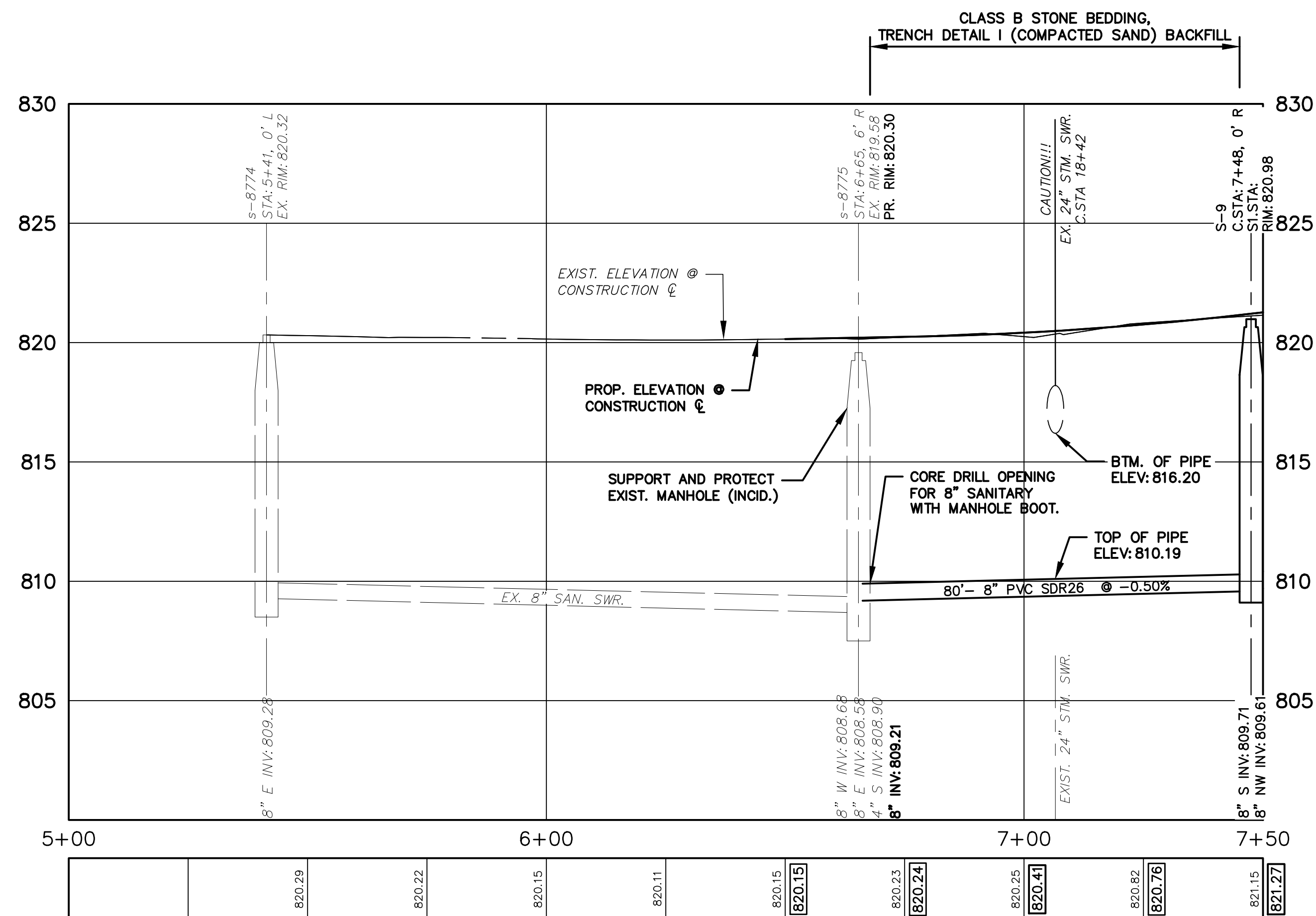
CITY OF ANN ARBOR
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ANN ARBOR, MI 48107-8647
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
SANITARY SEWER PLAN AND PROFILE
CONSTRUCTION STA. 45+50 TO STA. 49+50

SCALE PLAN: 1"=20'
PROFILE: 1"=4'
DRAWING No. SAN-11



SANITARY SEWER STRUCTURE TABLE							
STRUCTURE	STATION	SEWER STATION	RIM ELEV.	INVERTS	DEPTH	DIA.	APPL./CONST.
s-8774	5+41	N/A	820.32	8" E 809.28	11.32	48	SD-S-1 EX. M.H.
s-8775	6+65	S1 0+00	819.58	8" W 808.68 8" E 808.58 4" S 808.90	11.58	48	SD-S-1 EX. M.H./SWR. TAP
S-9	7+48	S1 0+80	820.98	8" S 809.71 8" NW 809.61	11.37	48	SD-S-1 NEW M.H.



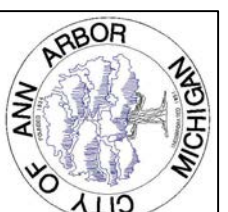
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5. PROVIDE EARTH RESTRAINT AND TRENCH SUPPORT AS NEEDED TO PROTECT ADJOINING UTILITIES AND STRUCTURES FROM SETTLEMENT OR DAMAGE DURING CONSTRUCTION.
6. PROVIDE ALL NECESSARY SUPPORT TO PROTECT UTILITIES CROSSING THE TRENCH DURING CONSTRUCTION. METHODS OF SUPPORT SHALL BE APPROVED BY UTILITY OWNER.
7. PROVIDE DEWATERING AS NEEDED TO MAINTAIN DRY AND STABLE TRENCH BOTTOM (INCIDENTAL TO PIPE BEING INSTALLED).



ISSUED FOR BIDS	APR. 22, 2015	ALP/MN	CEH
FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/MN	CEH
FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/MN	CEH
PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/MN	CEH
DESCRIPTION	DATE	DRAWN	CHECKED

CITY OF ANN ARBOR
PUBLIC SERVICES
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
SANITARY SEWER PLAN AND PROFILE
APPLE WAY CONSTRUCTION STA. 5+00 TO STA. 7+50

SCALE
DRAWING No. SAN-13
SHEET No.



CEH	CEH	CEH	CEH	CEH
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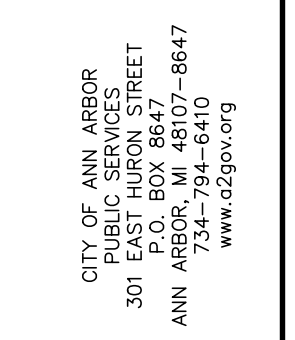
ALP/AMN	ALP/AMN	ALP/AMN	ALP/AMN	ALP/AMN
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APR. 22, 2015	MAR. 26, 2015	MAR. 13, 2015	JAN. 29, 2015	DATE
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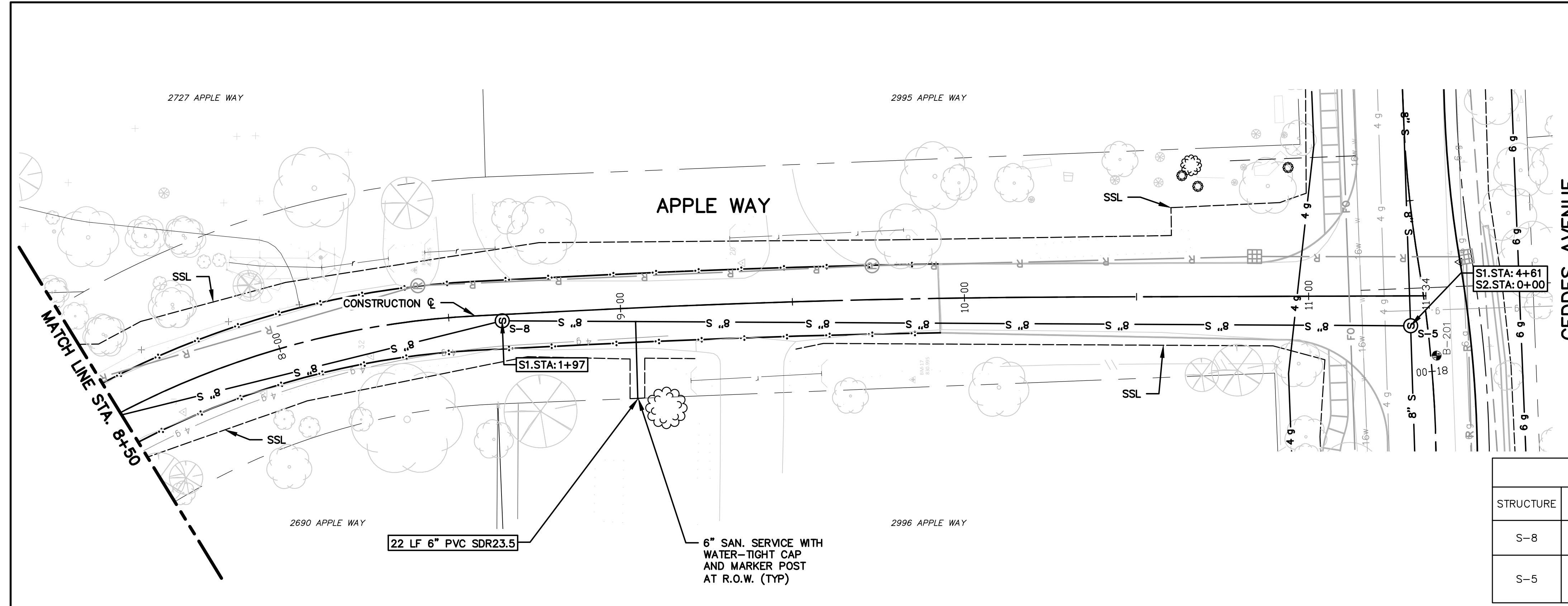
ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	FINAL REVIEW SUBMITTAL	PRELIMINARY PLAN SUBMITTAL	DESCRIPTION
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REV.	DESCRIPTION	DATE	DRAWN	CHECKED
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CITY OF ANN ARBOR PUBLIC SERVICES 301 EAST HURON STREET ANN ARBOR, MI 48107-8647 www.csbv.org

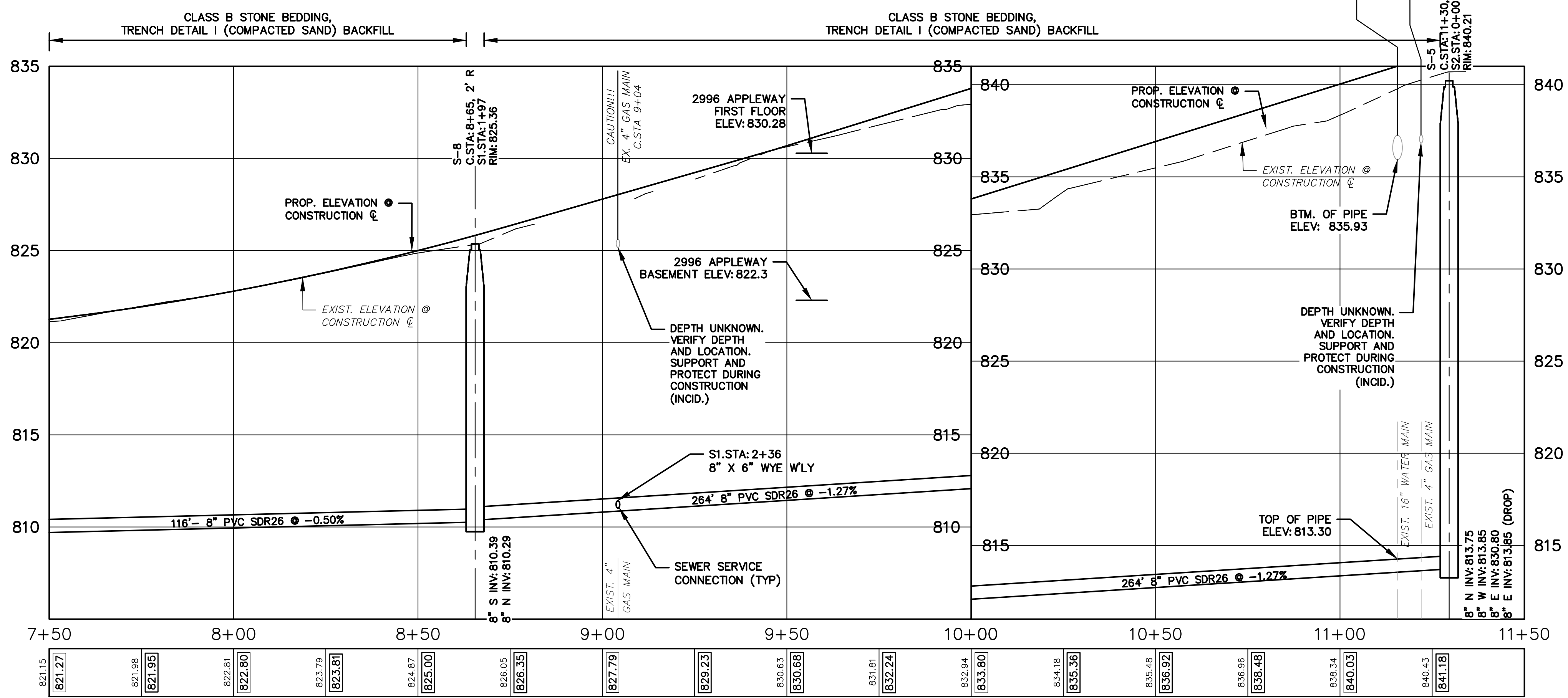


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 SCALE
 GEDES AVENUE IMPROVEMENTS
 SANITARY SEWER PLAN AND PROFILE
 APPLE WAY CONSTRUCTION STA. 7+50 TO STA. 11+34 (P.O.E.)
 DRAWING No. SAN-14
 SHEET No.

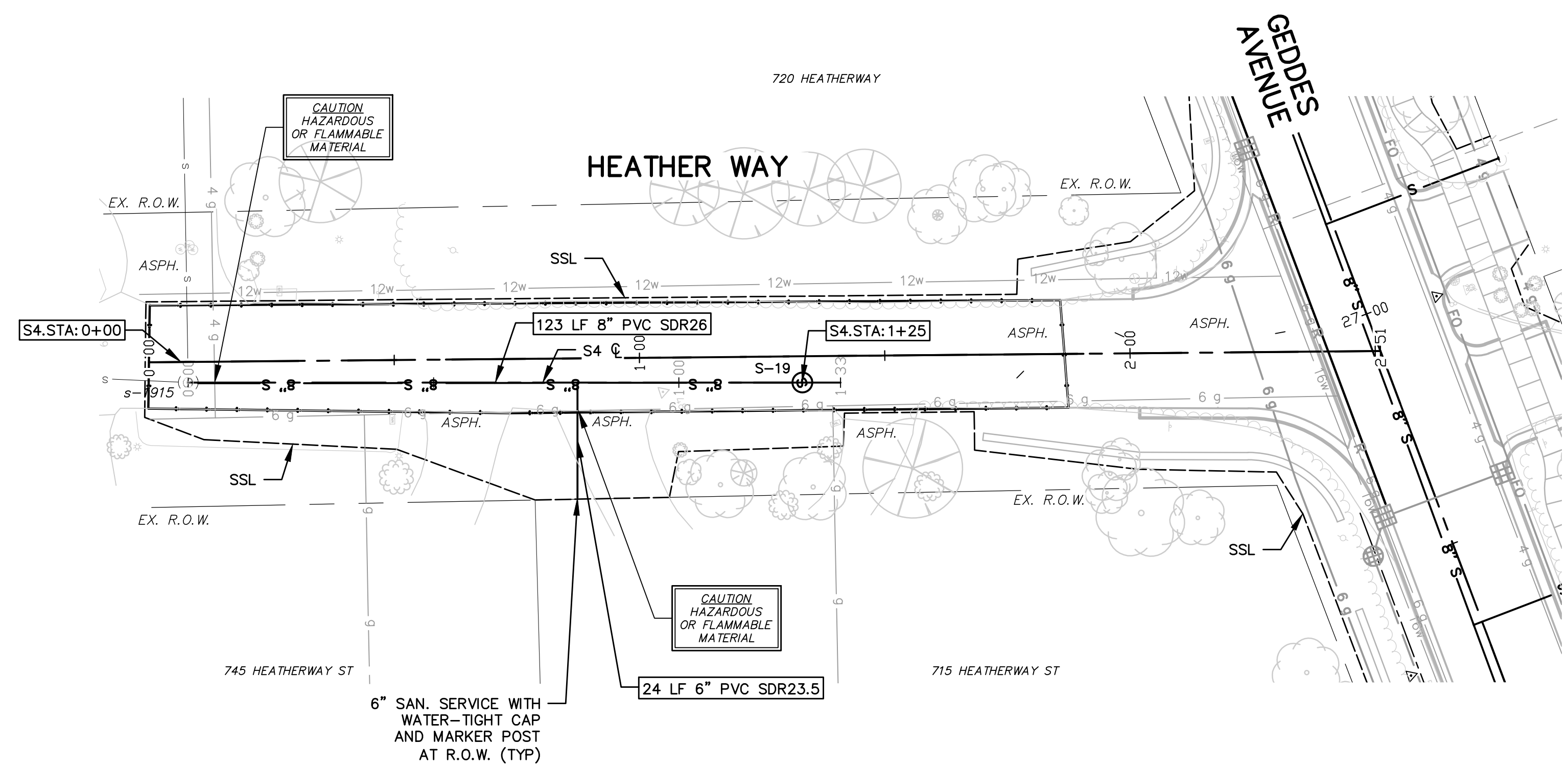


STRUCTURE	STATION	SEWER STATION	RIM ELEV.	INVERTS	DEPTH	DIA.	DETAIL	APPL./CONST.
S-8	8+65	S1 1+97	825.36	8" S 810.39 8" N 810.29	15.11	48	SD-S-1	NEW M.H.
S-5	11+30	S1 4+61 S2 0+00	840.21	8" N 813.75 8" W 813.85 8" E 830.80	26.46	48	SD-S-1	NEW M.H.

ADDRESS	LEAD ELEV. AT R.O.W.	SEWER STATION	SIZE (INCHES)	LENGTH (FT)	SLOPE	D/S M.H.	DIST. FROM D/S M.H.	RISER HEIGHT	CONNECT. TYPE
2996 APPLE WAY	816.30	S1 2+36	6	22	1.00%	S-8	39	5.5	TEE



- SANITARY SEWER NOTES:**
1. NEW SANITARY SEWER SHALL CONSIST OF ASTM D3034 SOLID WALL PVC SDR26 PIPE WITH WATER-TIGHT GASKETED JOINTS, CLASS B STONE BEDDING (UP TO 12" ABOVE TOP OF PIPE) AND COMPACTED SAND BACKFILL. DEFLECTION OF PVC PIPE AFTER INSTALLATION AND BACKFILL SHALL NOT EXCEED 5.0% OF THE PIPE DIAMETER.
 2. MANUFACTURED TEES SHALL BE USED AT ALL SERVICE CONNECTIONS WITH RISERS AND MANUFACTURED WYES SHALL BE USED AT ALL SERVICE CONNECTIONS WITHOUT RISERS.
 3. NEW SANITARY SERVICES SHALL CONSIST OF PVC SDR23.5 PIPE WITH WATER-TIGHT GASKETED JOINTS, STONE BEDDING AND BACKFILLED WITH COMPACTED SAND BACKFILL.
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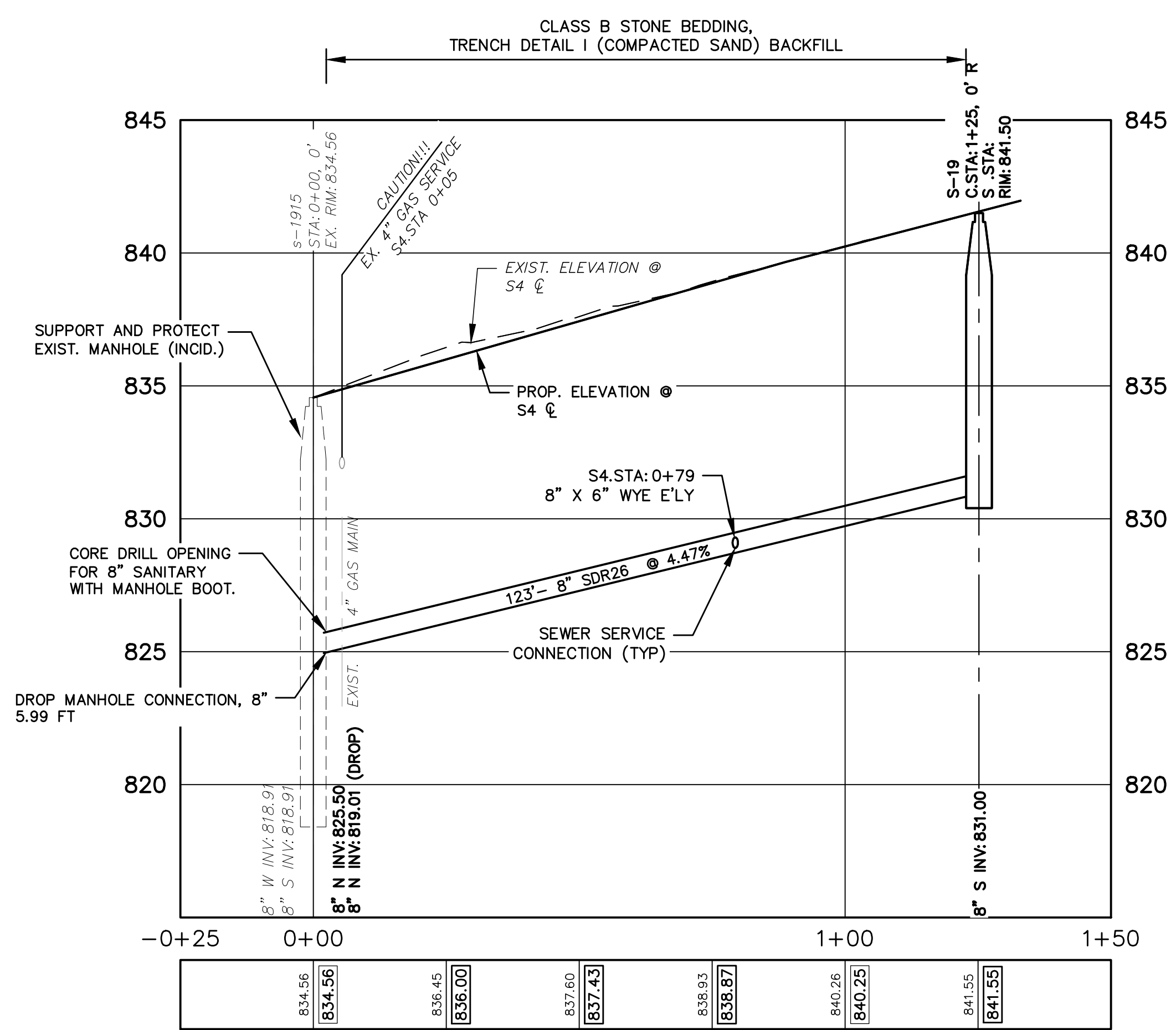


SANITARY SEWER LEAD TABLE

ADDRESS	GROUND ELEV. AT R.O.W.	SEWER STATION	SIZE (INCHES)	LENGTH (FT)	SLOPE	D/S M.H.	DIST. FROM D/S M.H.	RISER HEIGHT	CONNECT. TYPE
715 HEATHER WAY	830.60	S4 0+79	6	24	1.50%	s-1915	79	1.6	TEE

SANITARY SEWER STRUCTURE TABLE

STRUCTURE	CONST. STATION	SEWER STATION	RIM ELEV.	INVERTS	DEPTH	DIA.	DETAIL	APPLI/CONST.
s-1915	0+00	S4 0+00	834.56	8" W 818.91 EX. 8" S 818.91 EX. 8" N 825.00 PR.	15.65	48	SD-S-1	EX. M.H./SWR. TAP
S-19	1+25	S4 1+25	841.50	8" S 831.00 PR.	10.60	48	SD-S-1	NEW M.H.

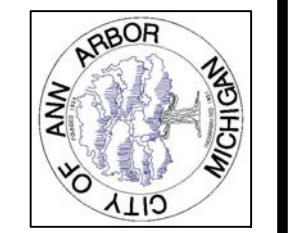


- SANITARY SEWER NOTES:**
1. NEW SANITARY SEWER SHALL CONSIST OF ASTM D3034 SOLID WALL PVC SDR26 PIPE WITH WATER-TIGHT GASKETED JOINTS, CLASS B STONE BEDDING (UP TO 12" ABOVE TOP OF PIPE) AND COMPACTED SAND BACKFILL. DEFLECTION OF PVC PIPE AFTER INSTALLATION AND BACKFILL SHALL NOT EXCEED 5.0% OF THE PIPE DIAMETER.
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ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	FINAL REVIEW SUBMITTAL	PRELIMINARY PLAN SUBMITTAL	DESCRIPTION	DATE	DRAWN	CHECKED
					APR. 22, 2015	ALP/AMN	CEH
					MAR. 26, 2015	ALP/AMN	CEH
					MAR. 13, 2015	ALP/AMN	CEH
					JAN. 29, 2015	ALP/AMN	CEH

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
SANITARY SEWER PLAN AND PROFILE
HEATHERWAY S4 STA. 0+00 TO STA. 1+35

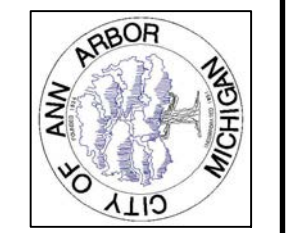
SCALE PLAN: 1"=20'
PROFILE: 1"=4'
DRAWING No. SAN-14
SHEET No.



APR. 22, 2015	ALP/AMN	CEH	CHECKED
MAR. 26, 2015	ALP/AMN	CEH	
MAR. 13, 2015	ALP/AMN	CEH	
JAN. 29, 2015	ALP/AMN	CEH	
	DATE	DRAWN	

ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	FINAL REVIEW SUBMITTAL	PRELIMINARY PLAN SUBMITTAL
REV.	DESCRIPTION		

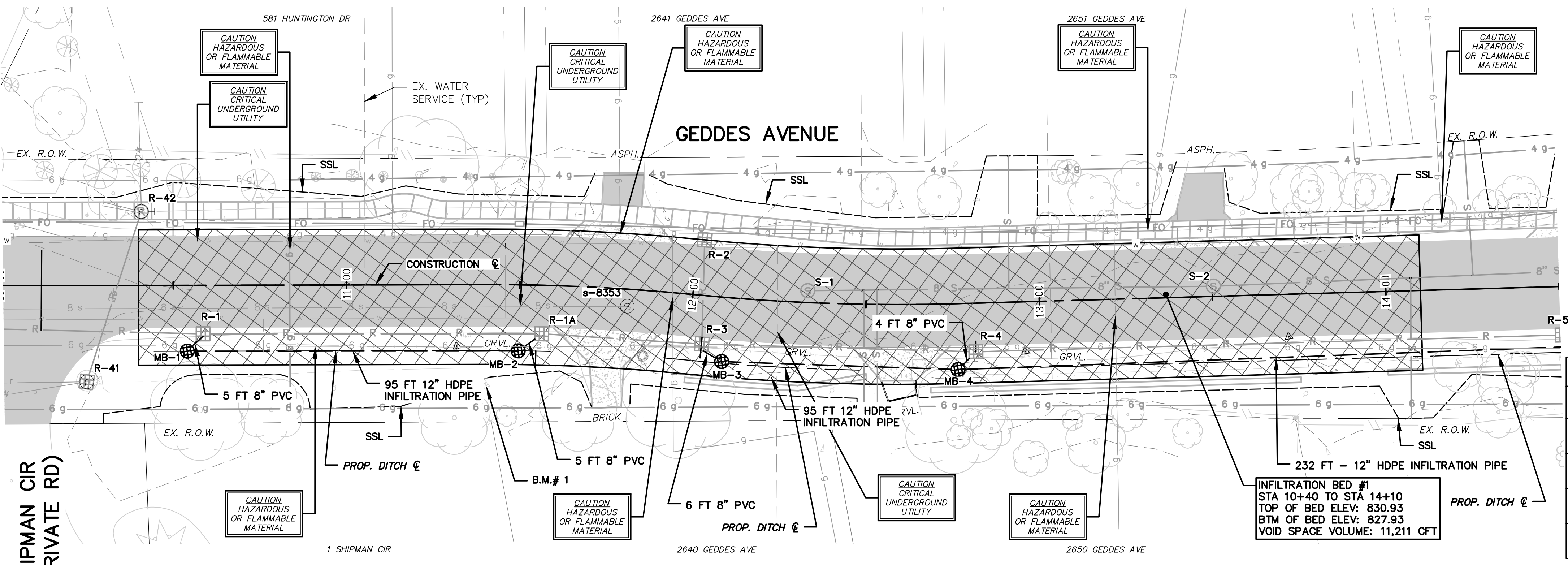
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
INFILTRATION PLAN AND PROFILE
STA. 10+00 TO STA. 14+50

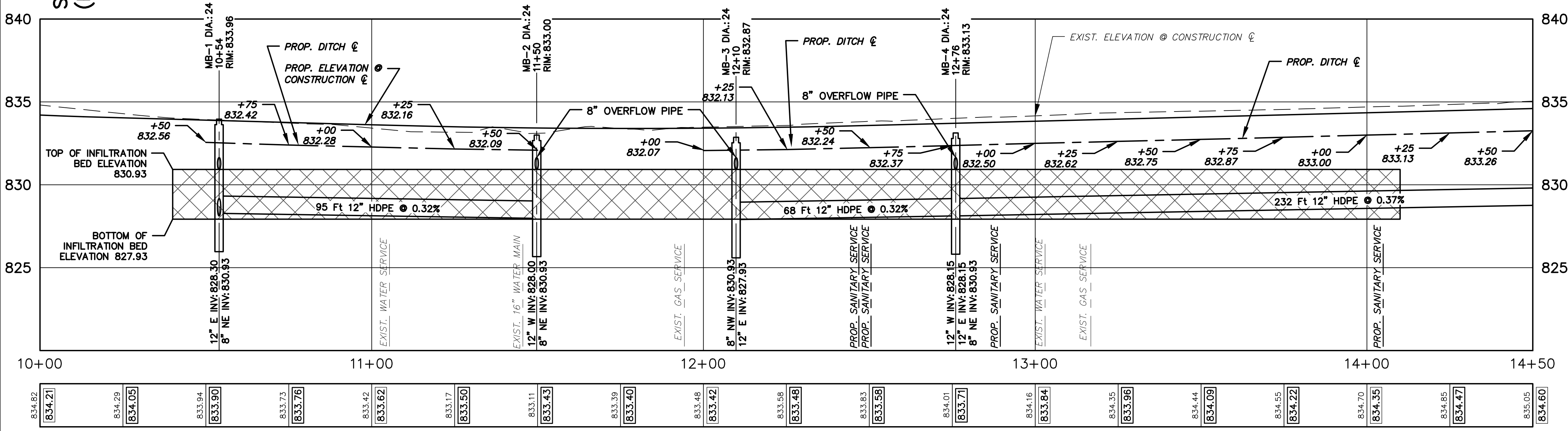
SCALE PLAN: 1"=20'
PROFILE: 1"=4'
DRAWING No. INFIL-01
SHEET No.

ALL TREES WITHIN PROJECT LIMITS SHALL BE PROTECTED PER CITY'S DETAIL AND AS DIRECTED BY THE ENGINEER.

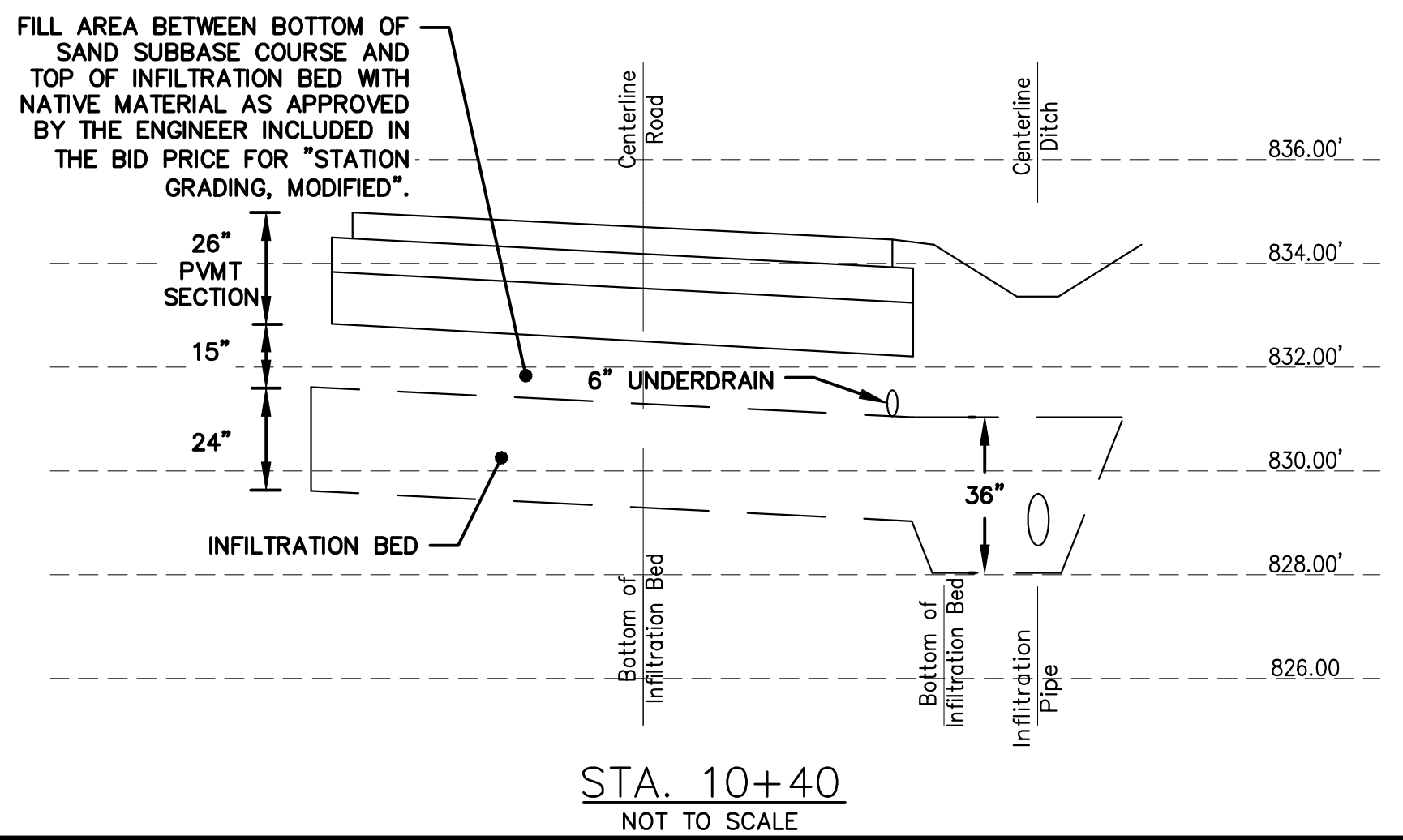


STRUCTURE	STATION	RIM ELEV.	DEPTH	DIA.	TYPE	INVERTS	COVER TYPE
MB-1	10+54.00	833.96	7.66	24	MB	12" E 828.30 8" NE 830.93	G
MB-2	11+49.73	833.00	7.00	24	MB	12" W 828.00 8" NE 830.93	G
MB-3	12+09.84	832.87	6.94	24	MB	8" NW 830.93 12" E 827.93	G
MB-4	12+76.04	833.13	6.98	24	MB	12" W 828.15 12" E 828.15	G

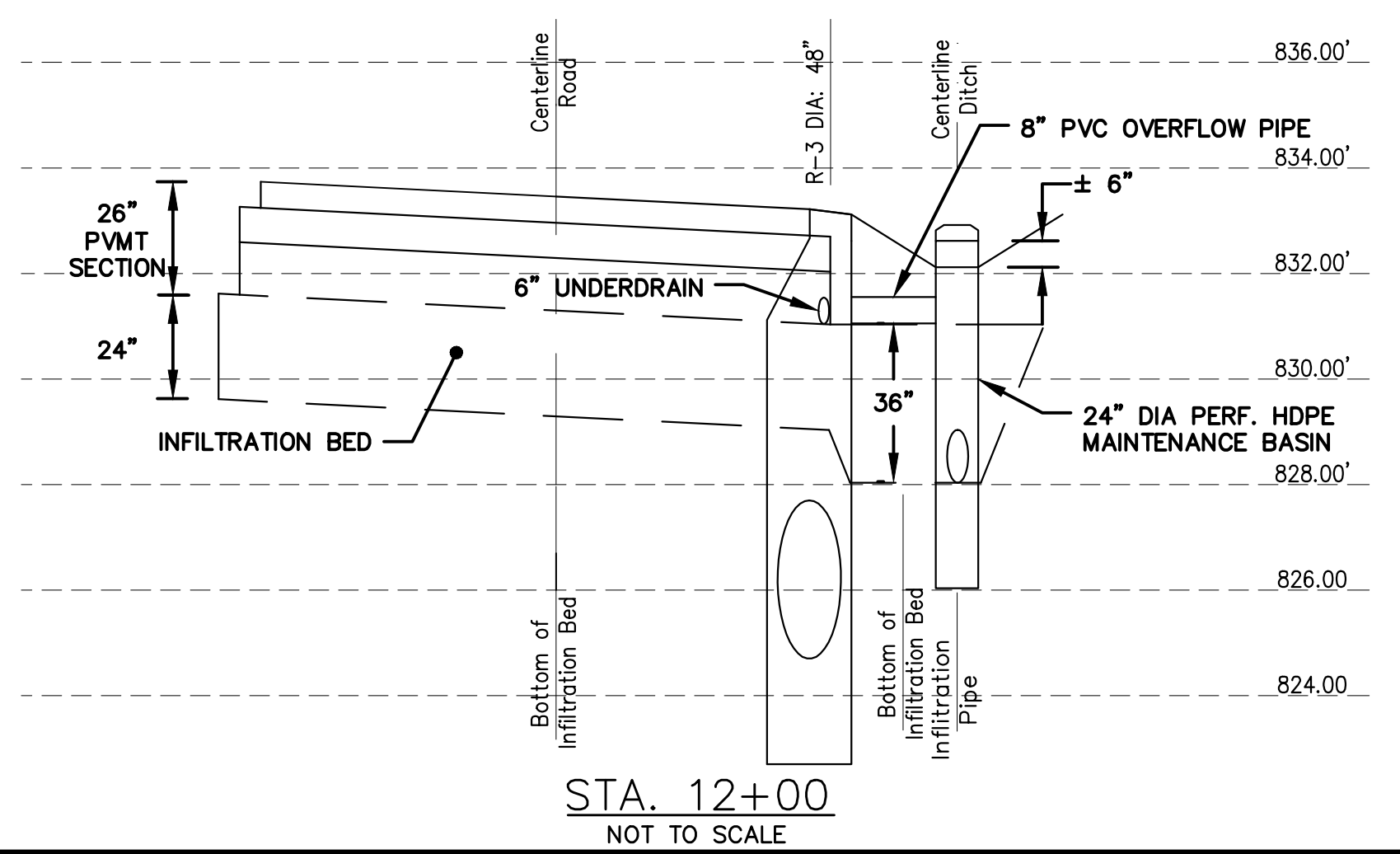
INFILTRATION BED #1
STA 10+40 TO STA 14+10
TOP OF BED ELEV: 830.93
BTM OF BED ELEV: 827.93
VOID SPACE VOLUME: 11,211 CFT



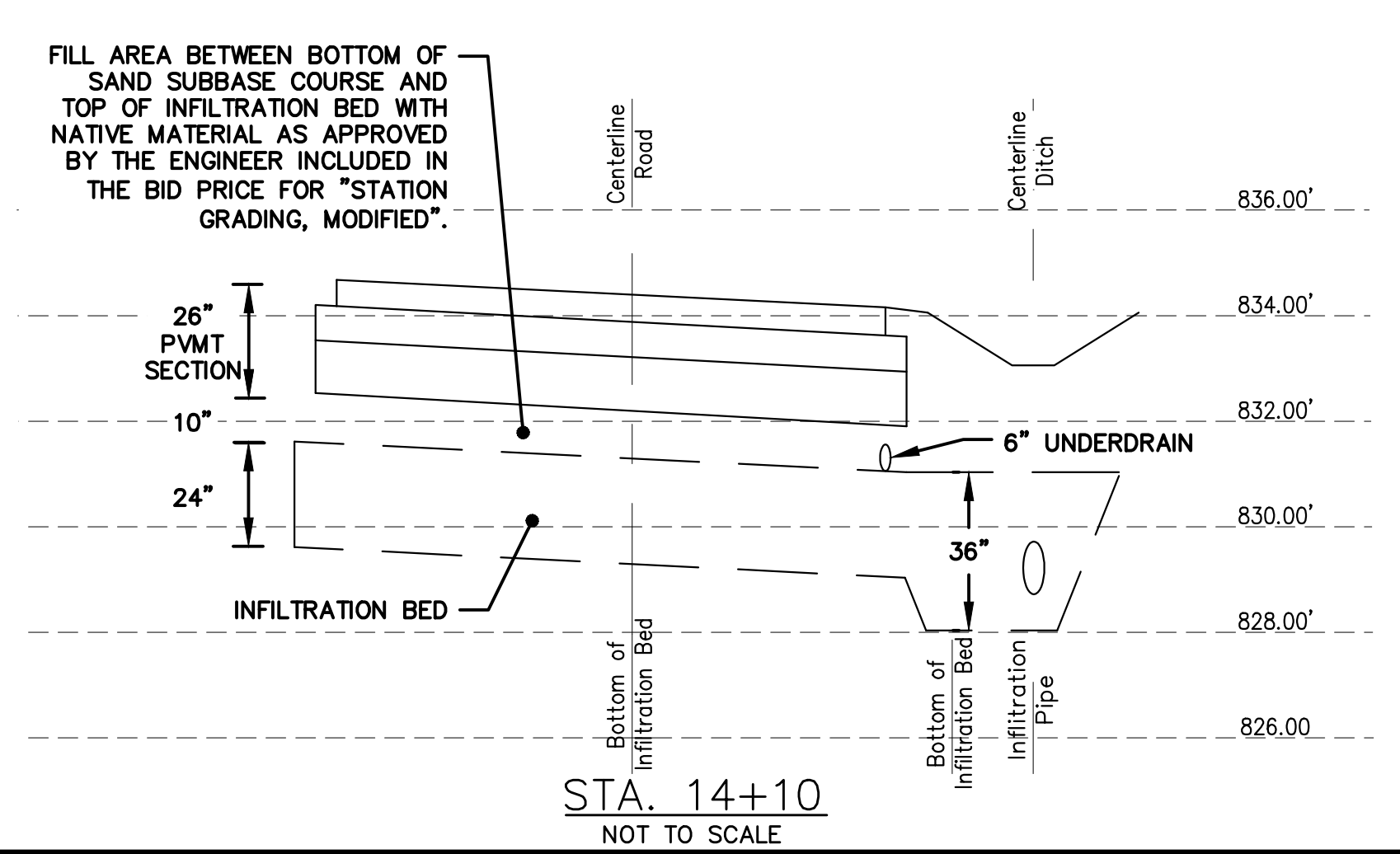
B.M.#	DESCRIPTION	ELEV.
1	STEAMER VALVE ON HYDRANT ON THE S. SIDE OF GEDDES, E'LY OF SHIPMAN CIRCLE	835.203



STA. 10+40
NOT TO SCALE



STA. 12+00
NOT TO SCALE



STA. 14+10
NOT TO SCALE



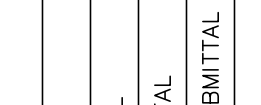
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ALP/MN
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ALP/MN
ALP/MN
ALP/MN
ALP/MN

APR. 22, 2015
MAR. 26, 2015
MAR. 13, 2015
JAN. 29, 2015
DATE

ISSUED FOR BIDS
FINAL PLAN SUBMITTAL
FINAL REVIEW SUBMITTAL
PRELIMINARY PLAN SUBMITTAL
REV. DESCRIPTION

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ANN ARBOR, MI 48107-8647
734-794-6410
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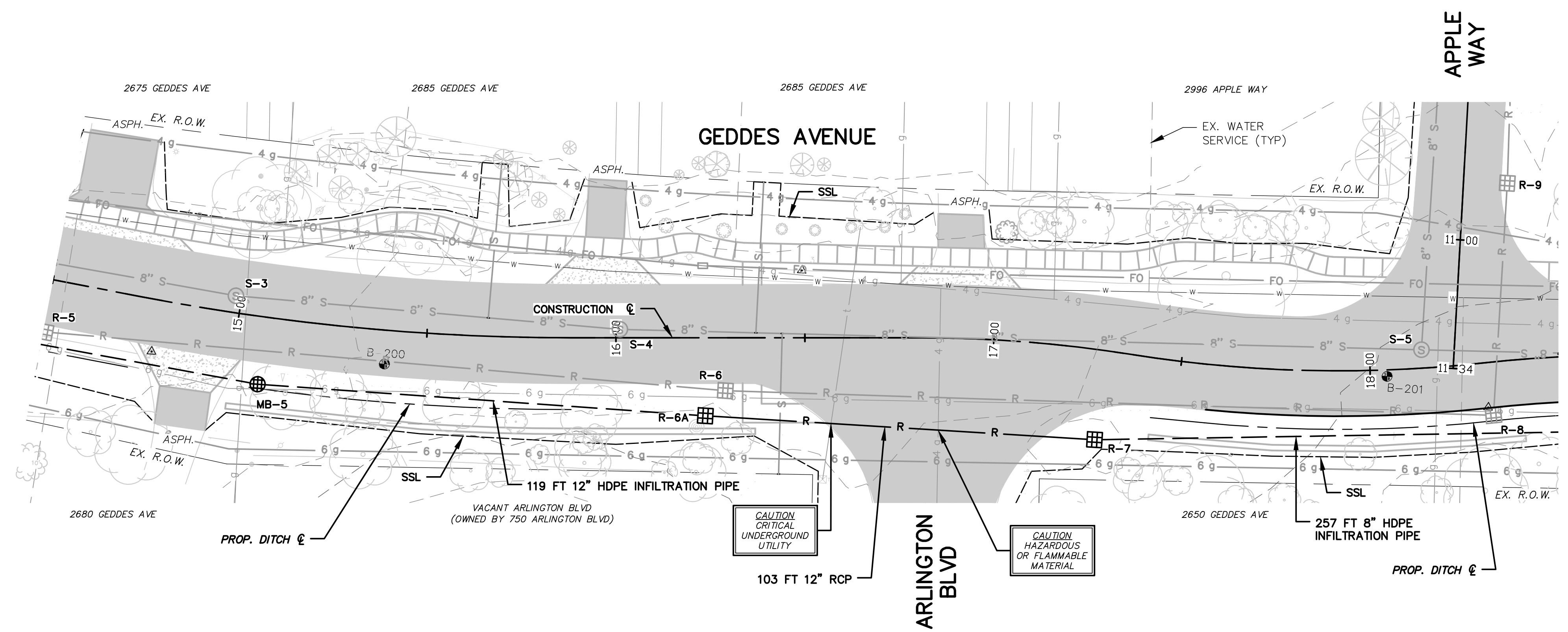


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
INFILTRATION PLAN AND PROFILE
STA. 14+50 TO STA. 18+50

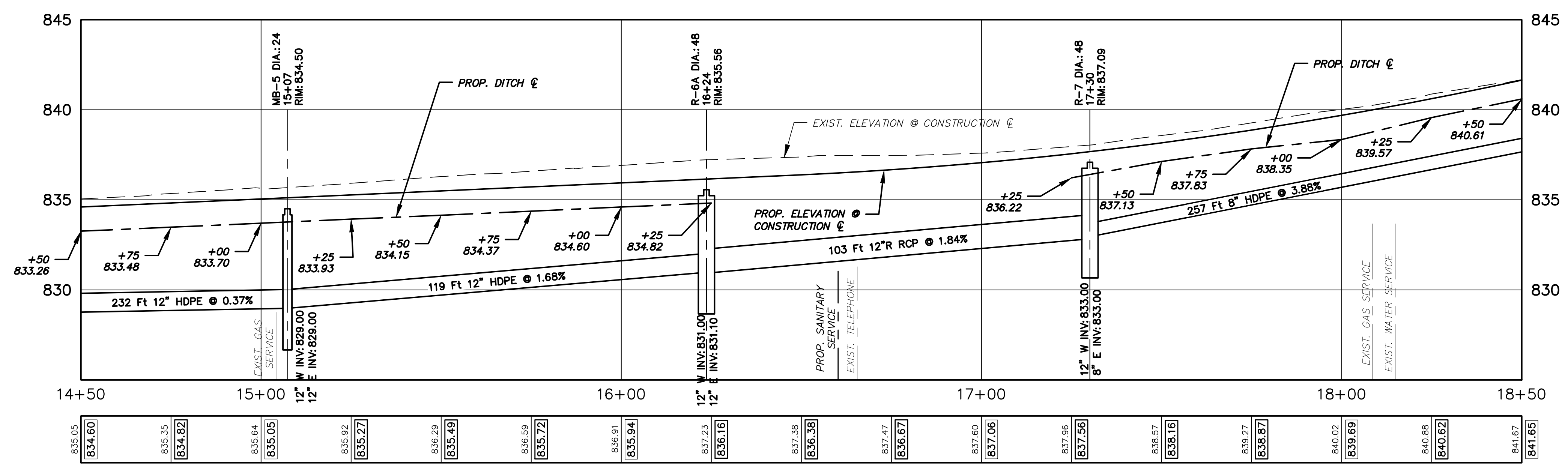
SCALE PLAN: 1"=20'
PROFILE: 1"=4'

DRAWING No. INFIL-02

SHEET No. 60 OF 187



STRUCTURE	STATION	RIM ELEV.	DEPTH	DIA.	TYPE	INVERTS	COVER TYPE
MB-5	15+07.34	834.50	7.50	24	MB	12" W 829.00 12" E 829.00	G
R-6A	16+23.67	835.56	6.56	48	MB	12" W 831.00 12" E 831.10	G
R-7	17+30.12	837.09	6.09	48	MB	12" W 833.00 8" E 833.00	G





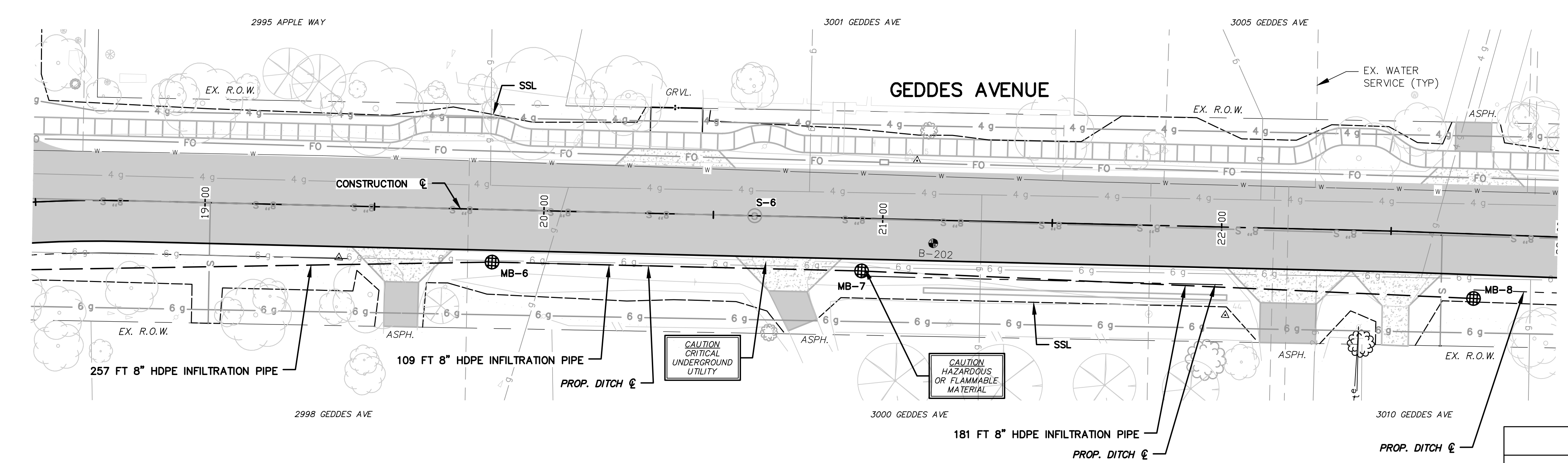
Know what's below.
Call before you dig.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	APR. 22, 2015	ALP/ANN	CEH
	FINAL REVIEW SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH
	PRELIMINARY PLAN SUBMITTAL	MAR. 13, 2015	ALP/ANN	CEH
		JAN. 29, 2015	ALP/ANN	CEH

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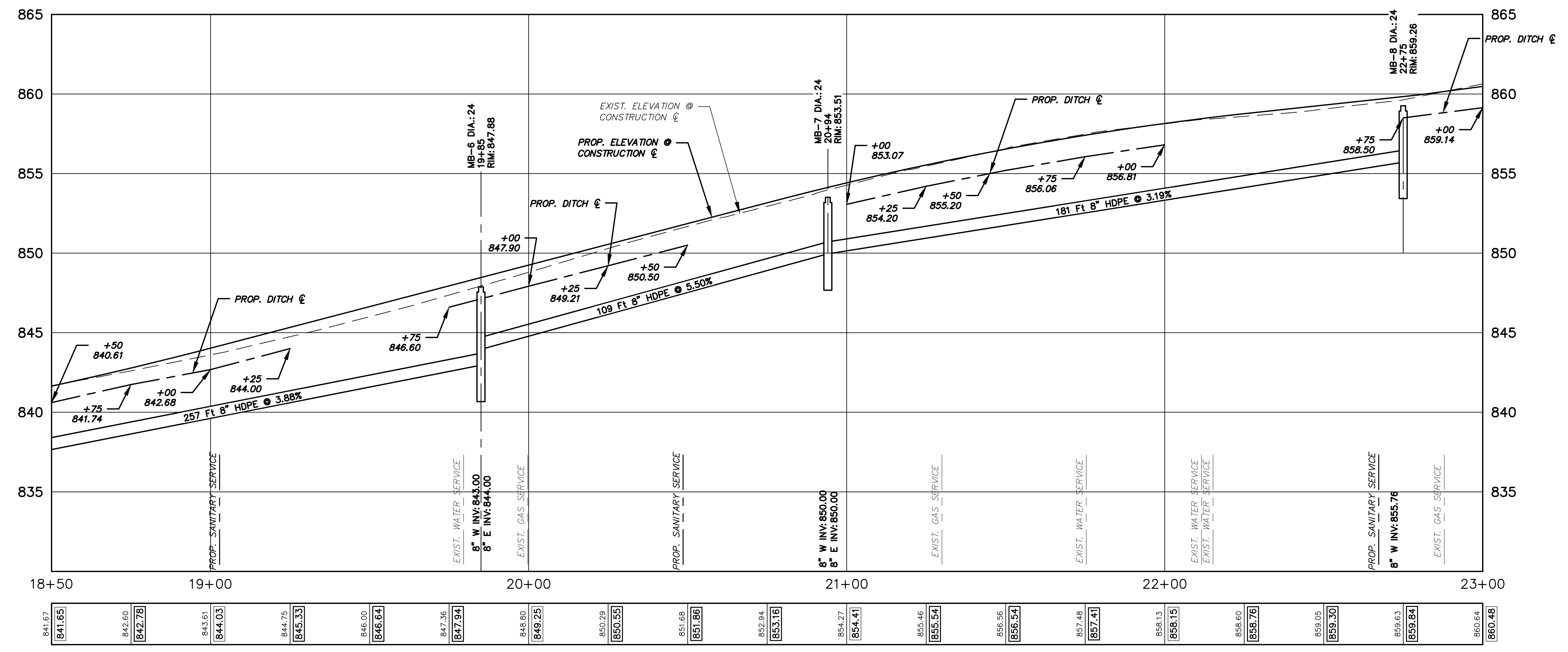


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
INFILTRATION PLAN AND PROFILE
STA. 18+50 TO STA. 23+00

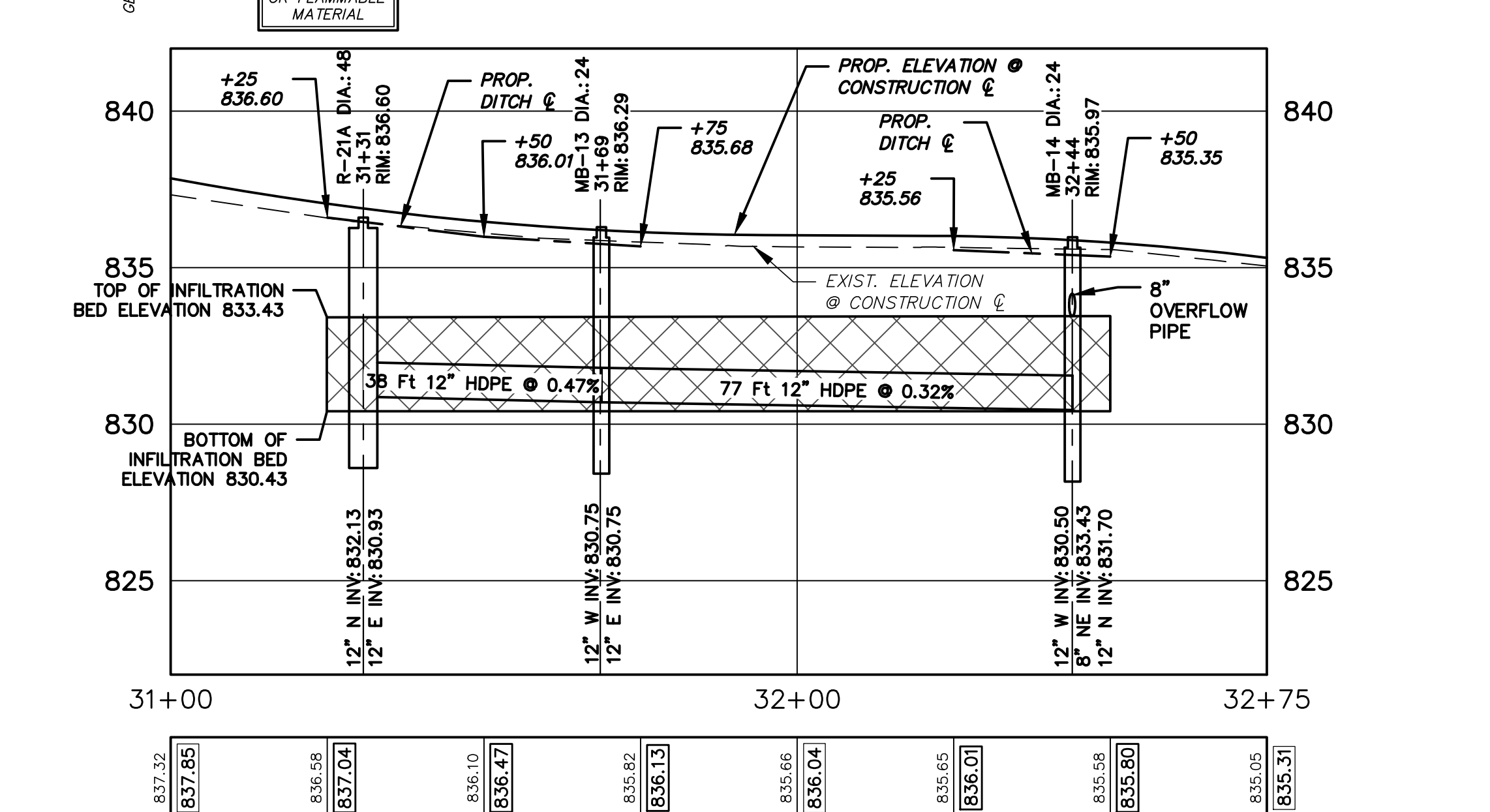
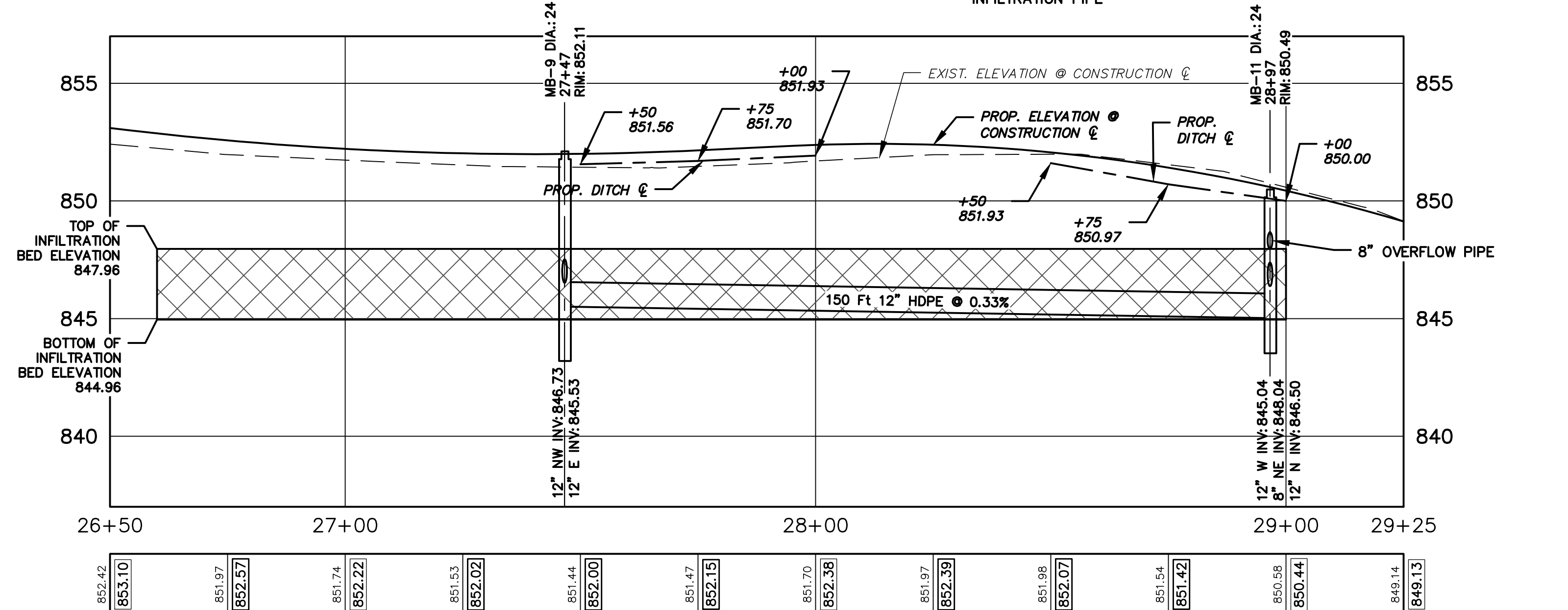
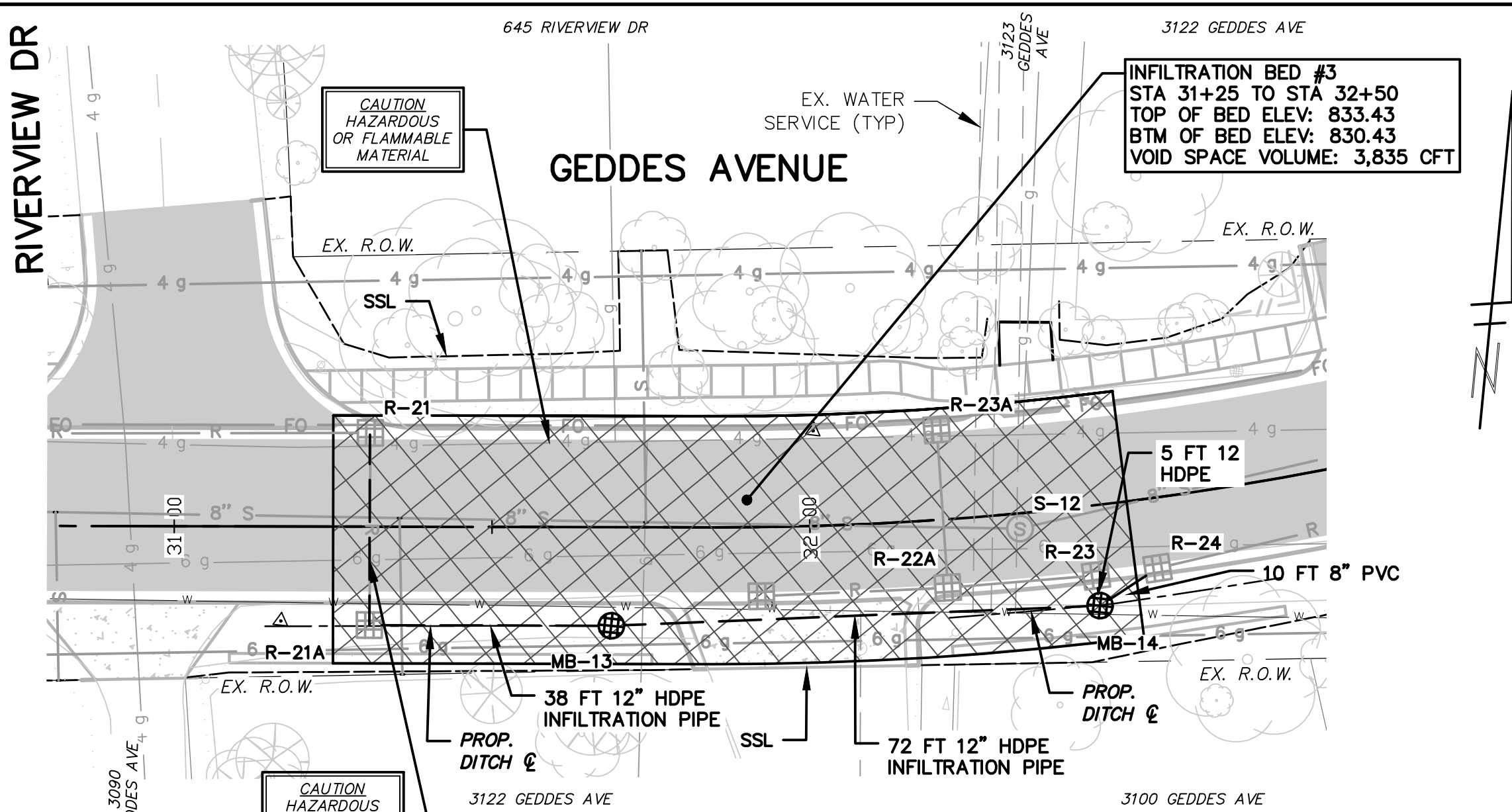
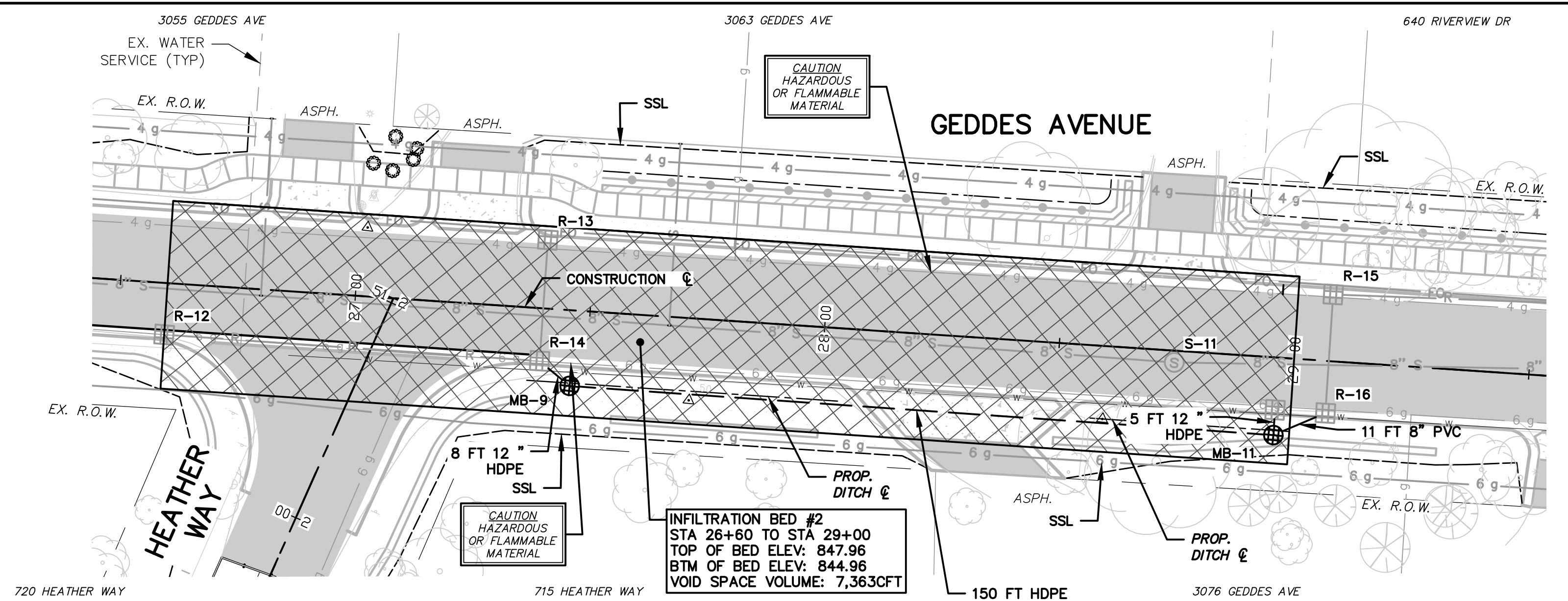


ALL TREES WITHIN PROJECT LIMITS SHALL BE PROTECTED PER CITY'S DETAIL AND AS DIRECTED BY THE ENGINEER.

STRUCTURE	STATION	RIM ELEV.	DEPTH	DIA.	TYPE	INVERTS	COVER TYPE
MB-6	19+85.04	847.88	6.88	24	MB	8" W 843.00 8" E 844.00	G
MB-7	20+94.10	853.51	5.51	24	MB	8" W 850.00 8" E 850.00	G
MB-8	22+75.00	859.26	5.50	24	MB	8" W 855.76	G



841.67	842.60	843.61	844.03	844.75	845.33	846.00	846.64	847.36	847.94	848.80	849.25	850.29	850.55	851.68	851.96	852.94	853.16	854.27	854.41	855.46	855.54	856.56	856.54	857.48	857.41	858.13	858.15	858.60	858.76	859.05	859.50	859.63	859.84	860.64	860.48
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INFILTRATION STRUCTURE TABLE

STRUCTURE	STATION	RIM ELEV.	DEPTH	DIA.	TYPE	INVERTS	COVER TYPE
MB-9	27+46.72	852.11	8.58	24	MB	12" NW 846.73 12" E 845.53	G
MB-11	28+96.68	850.49	6.63	24	MB	12" W 845.04 8" NE 848.04 12" N 846.57 12" N 846.50	G

INFILTRATION STRUCTURE TABLE

STRUCTURE	STATION	RIM ELEV.	DEPTH	DIA.	TYPE	INVERTS	COVER TYPE
R-21A	31+30.74	836.60	7.67	48	MB	12" N 832.13 12" E 830.93	G
MB-13	31+68.77	836.29	7.54	24	MB	12" W 830.75 12" E 830.75	G

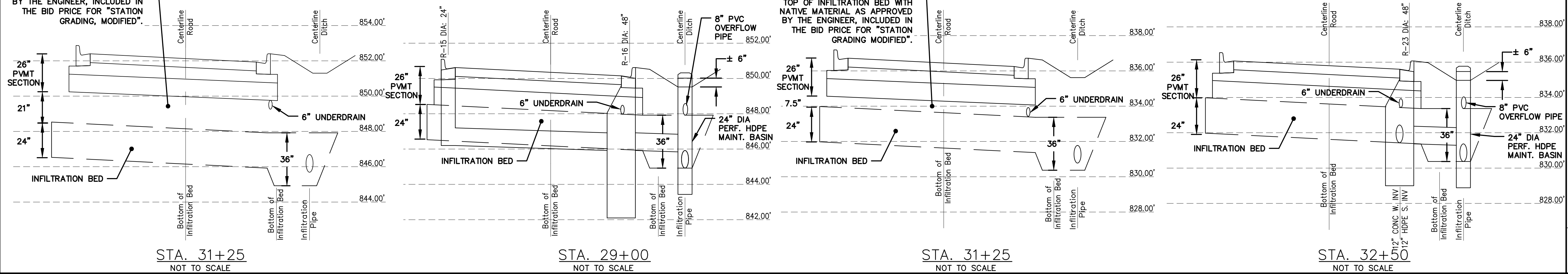
INFILTRATION STRUCTURE TABLE


STRUCTURE	STATION	RIM ELEV.	DEPTH	DIA.	TYPE	INVERTS	COVER TYPE
MB-14	32+43.97	835.97	7.47	24	MB	12" W 830.50 8" NE 833.43 12" N 831.70	G

ALL TREES WITHIN PROJECT LIMITS SHALL BE PROTECTED PER CITY'S DETAIL AND AS DIRECTED BY THE ENGINEER.

FILL AREA BETWEEN BOTTOM OF SAND SUBBASE COURSE AND TOP OF INFILTRATION BED WITH NATIVE MATERIAL AS APPROVED BY THE ENGINEER, INCLUDED IN THE BID PRICE FOR "STATION GRADING, MODIFIED".

FILL AREA BETWEEN BOTTOM OF SAND SUBBASE COURSE AND TOP OF INFILTRATION BED WITH NATIVE MATERIAL AS APPROVED BY THE ENGINEER, INCLUDED IN THE BID PRICE FOR "STATION GRADING, MODIFIED".






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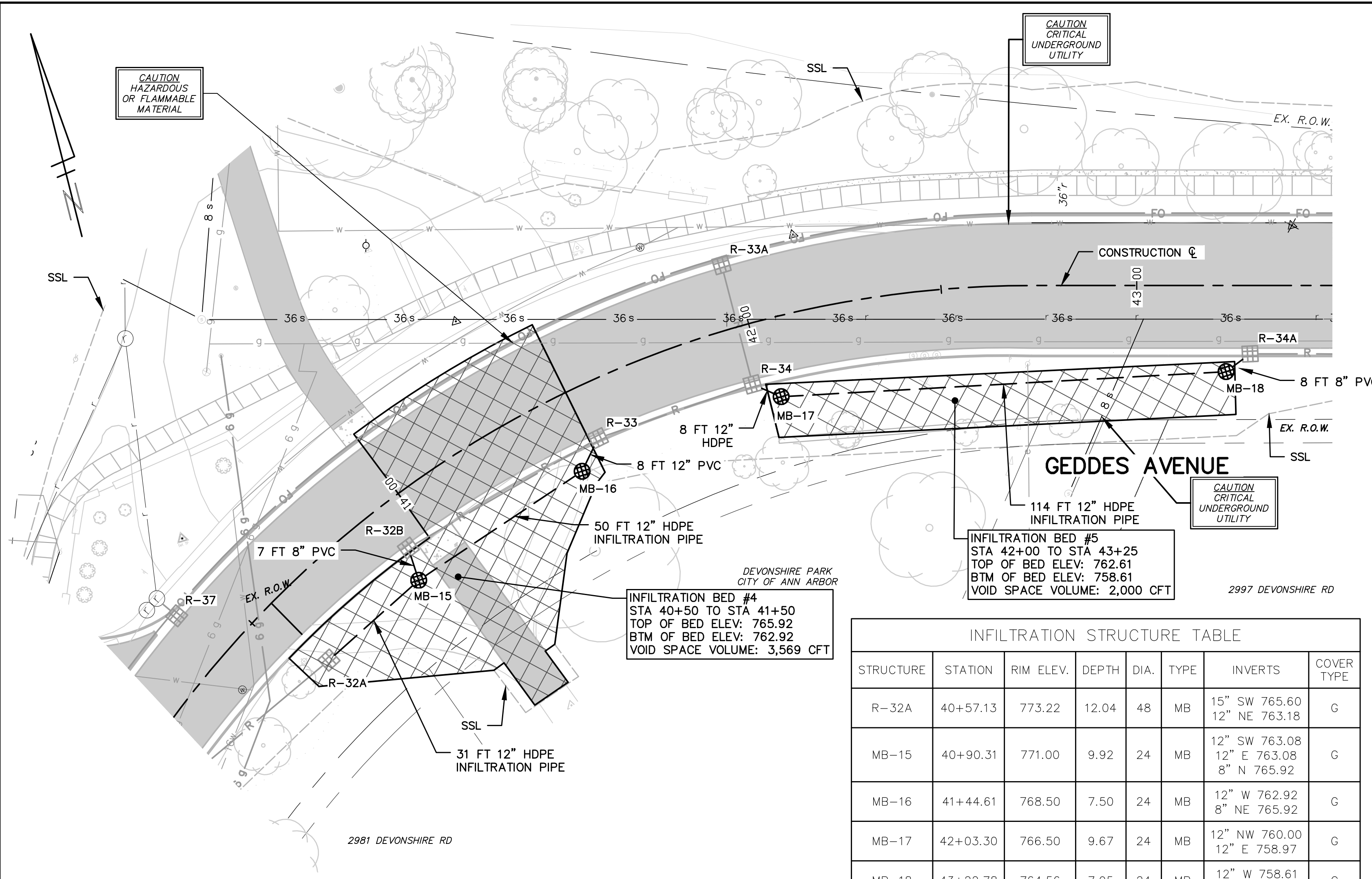
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
1	ISSUED FOR BIDS	APR. 22, 2015	ALP/AN	CEH
2	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/AN	CEH
3	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/AN	CEH
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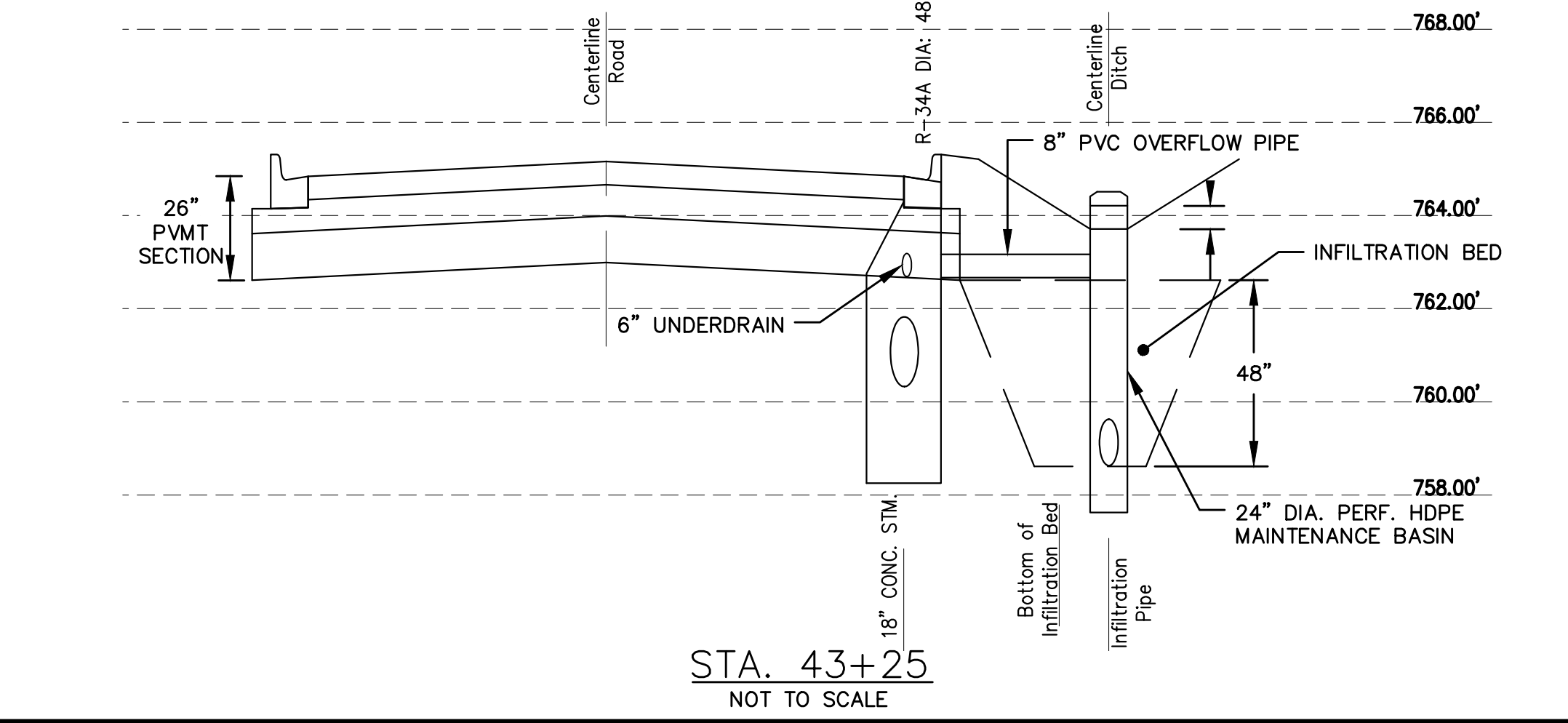
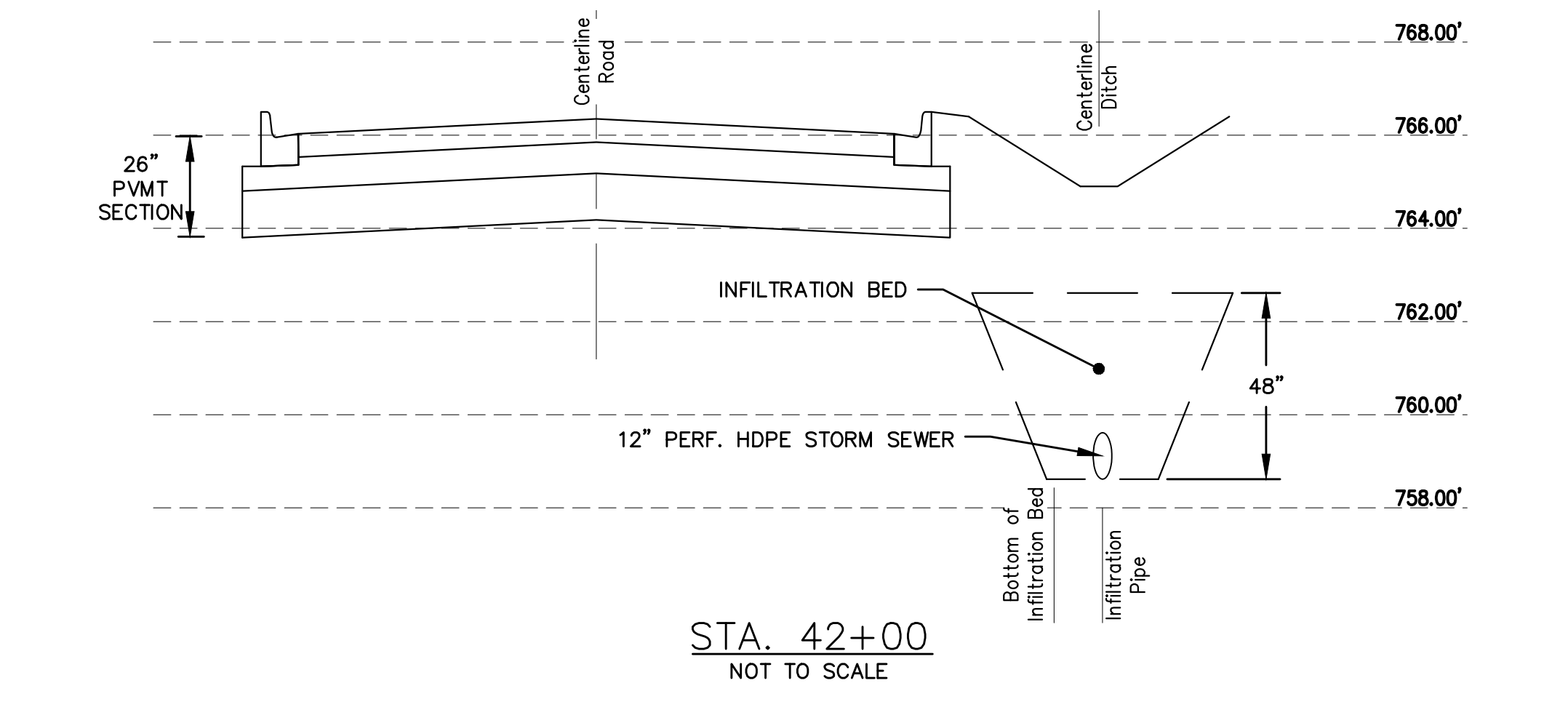
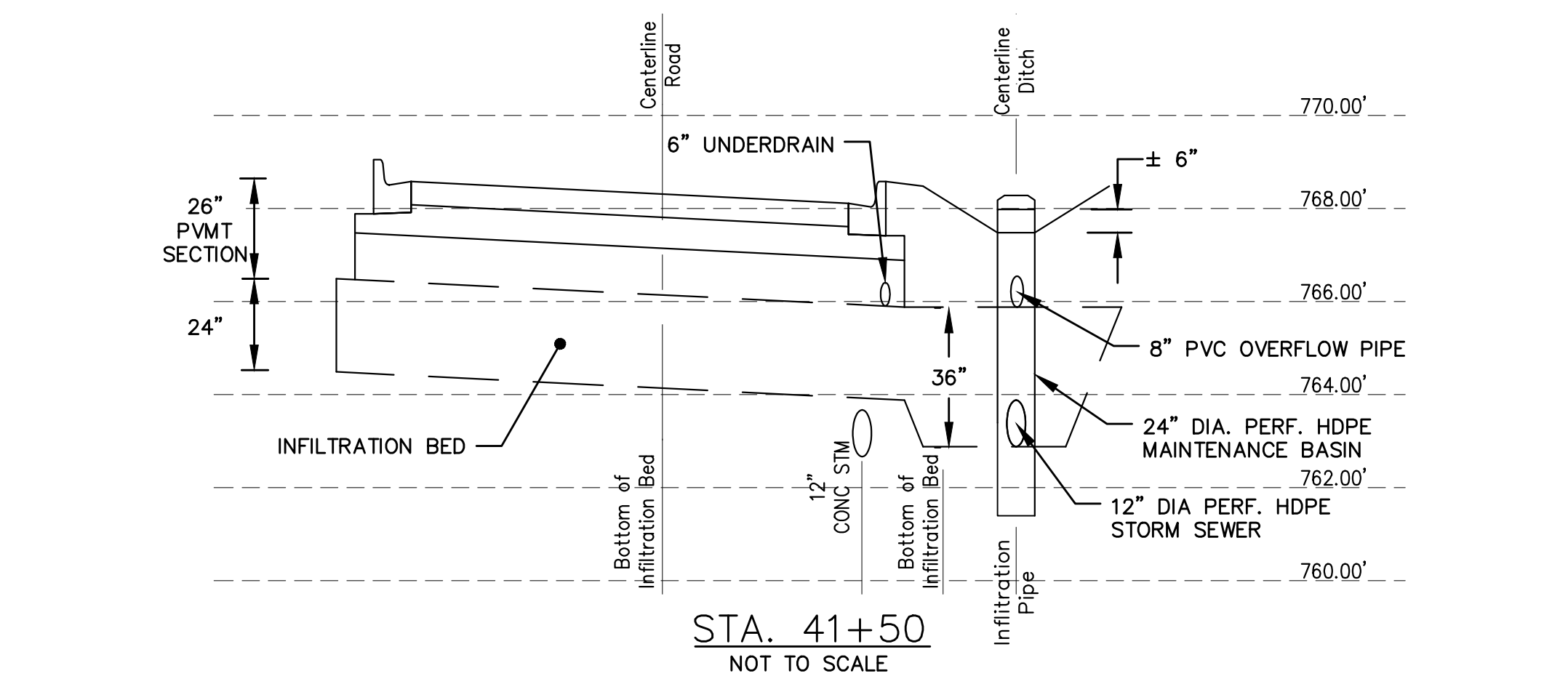
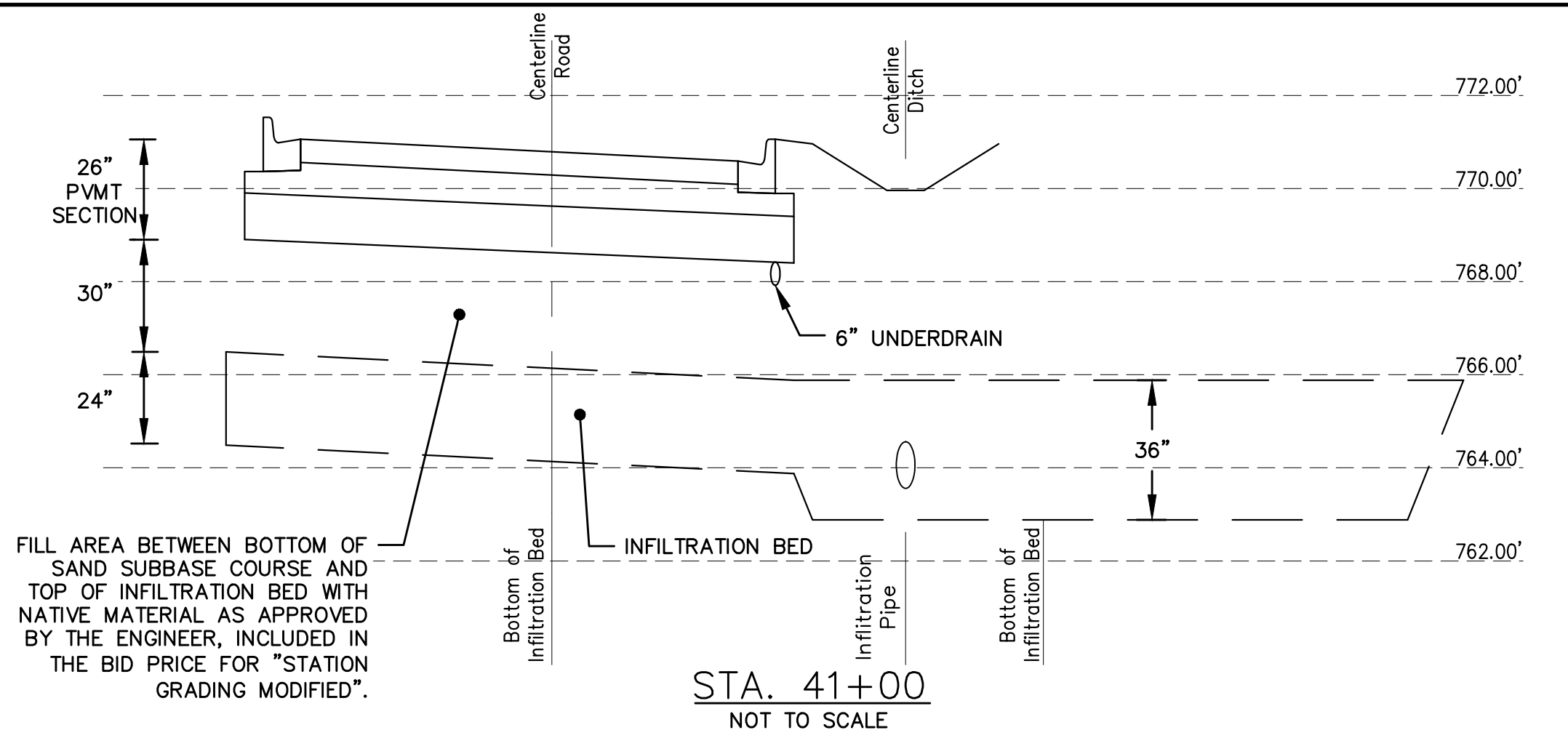
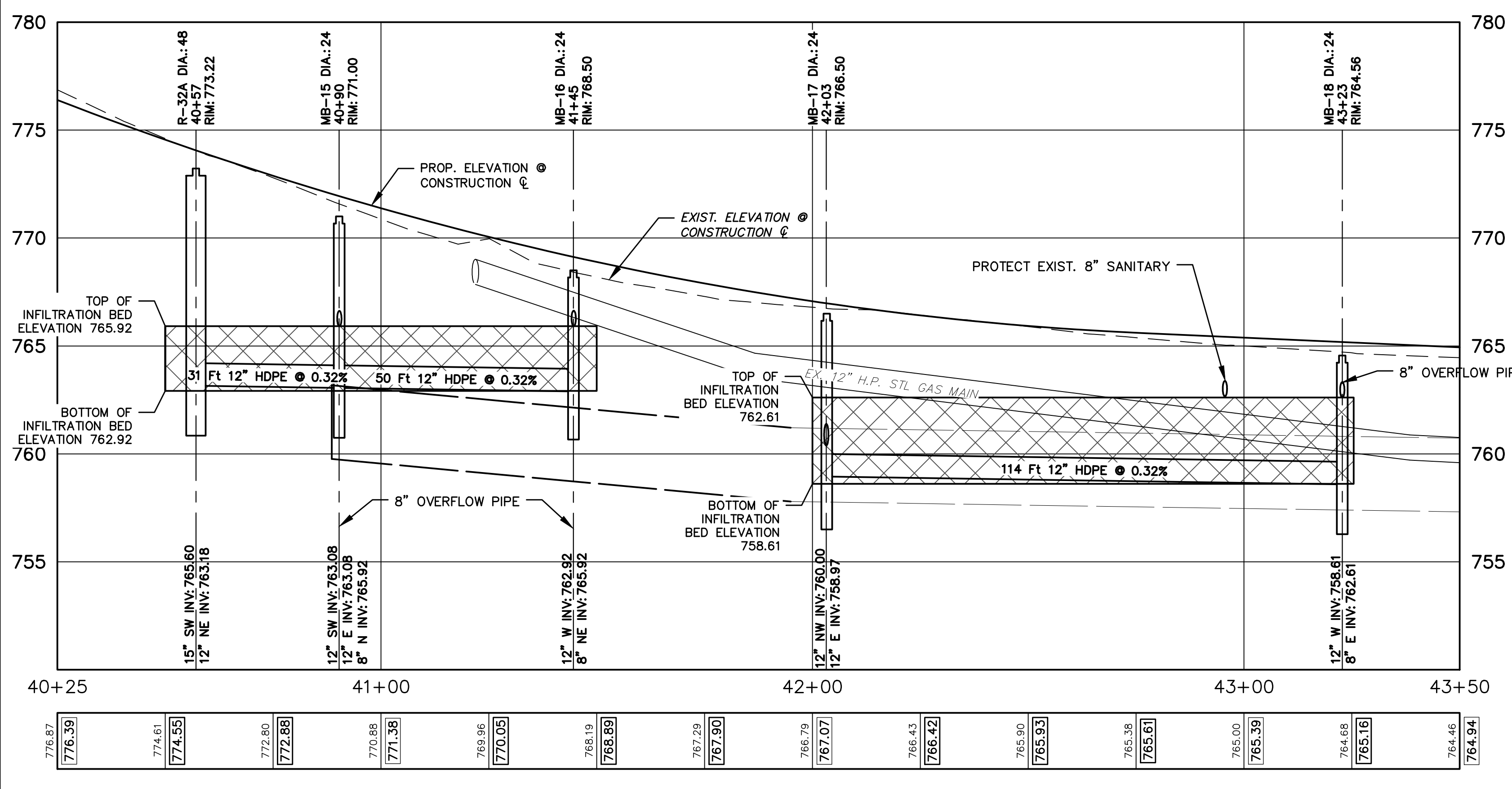
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
INFILTRATION PLAN AND PROFILE
STA. 26+50 TO STA. 32+75


DRAWING No. **INFIL-04**
SHEET No. **62 OF 187**



INFILTRATION STRUCTURE TABLE


STRUCTURE	STATION	RIM ELEV.	DEPTH	DIA.	TYPE	INVERTS	COVER TYPE
R-32A	40+57.13	773.22	12.04	48	MB	15" SW 765.60 12" NE 763.18	G
MB-15	40+90.31	771.00	9.92	24	MB	12" SW 763.08 12" E 763.08 8" N 765.92	G
MB-16	41+44.61	768.50	7.50	24	MB	12" W 762.92 8" NE 765.92	G
MB-17	42+03.30	766.50	9.67	24	MB	12" NW 760.00 12" E 758.97	G
MB-18	43+22.78	764.56	7.95	24	MB	12" W 758.61 8" E 762.61	G





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ISSUED FOR BIDS	APR. 22, 2015	ALP/AMN	CEH	CHECKED
FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/AMN	CEH	
FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/AMN	CEH	
PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/AMN	CEH	
REV.	DATE	BY	CHKD	DRWN



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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
INFILTRATION PLAN AND PROFILE
STA. 40+50 TO STA. 44+00

SCALE PLAN: 1"=20'
PROFILE: 1"=4'

DRAWING No. INFIL-05

SHEET No. 63 OF 187



CEH
ALP/ANN
APR. 22, 2015

CEH
ALP/ANN
MAR. 26, 2015

CEH
ALP/ANN
MAR. 13, 2015

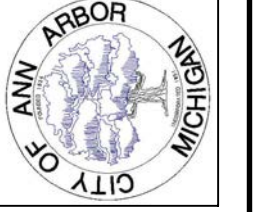
CEH
ALP/ANN
JAN. 29, 2015

ISSUED FOR BIDS
FINAL PLAN SUBMITTAL

FINAL REVIEW SUBMITTAL
PRELIMINARY PLAN SUBMITTAL

REV. DESCRIPTION

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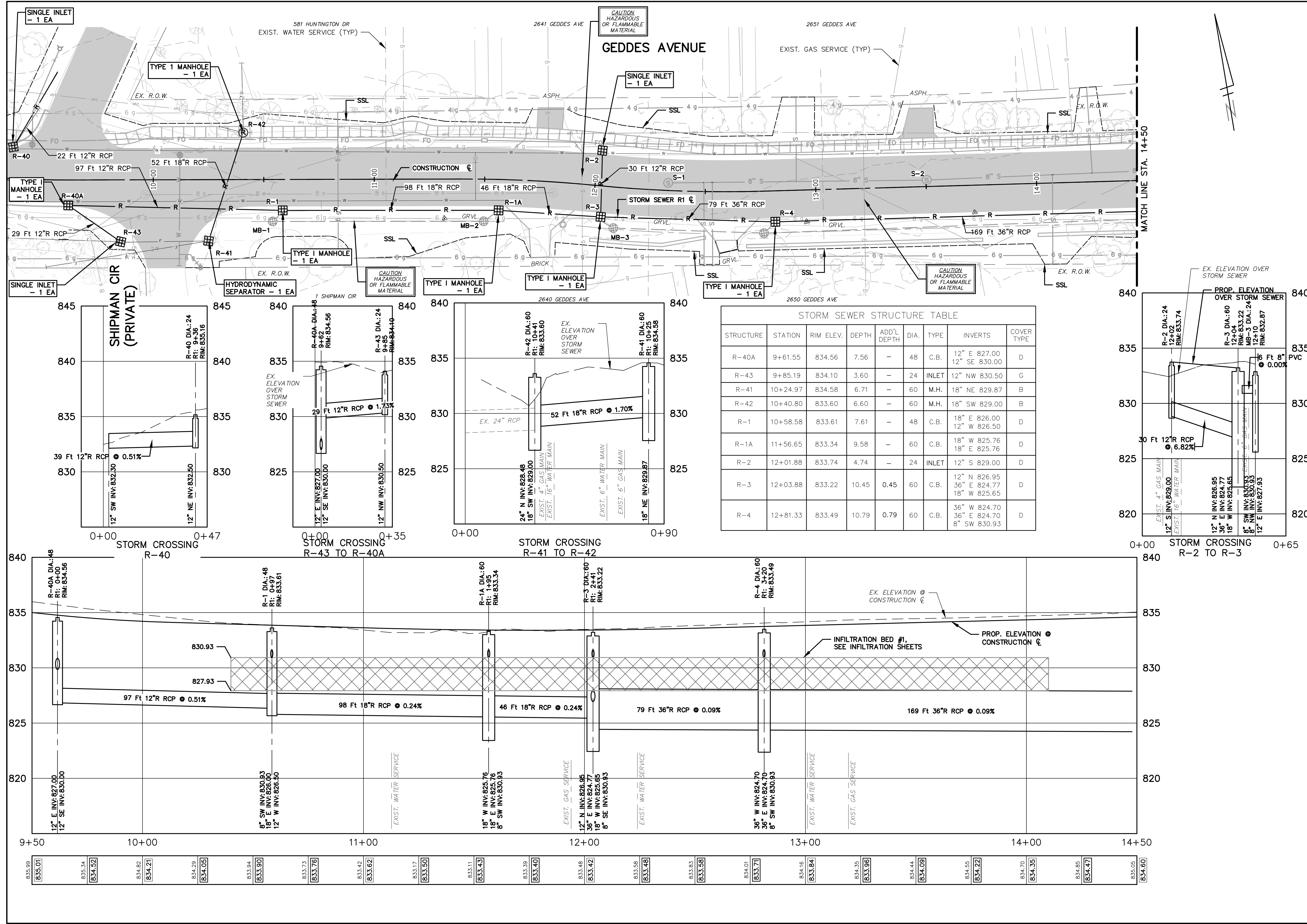
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDES AVENUE IMPROVEMENTS
ST. 10+00 TO STA. 14+50

SCALE PLAN: 1"=20'
PROFILE: 1"=4'

DRAWING No. **STM-01**

SHEET No.

64 OF 187





APR. 22, 2015	ALP/AMN	CEH	CHECKED
MAR. 26, 2015	ALP/AMN	CEH	
MAR. 13, 2015	ALP/AMN	CEH	
JAN. 29, 2015	ALP/AMN	CEH	
	DATE	DRAWN	

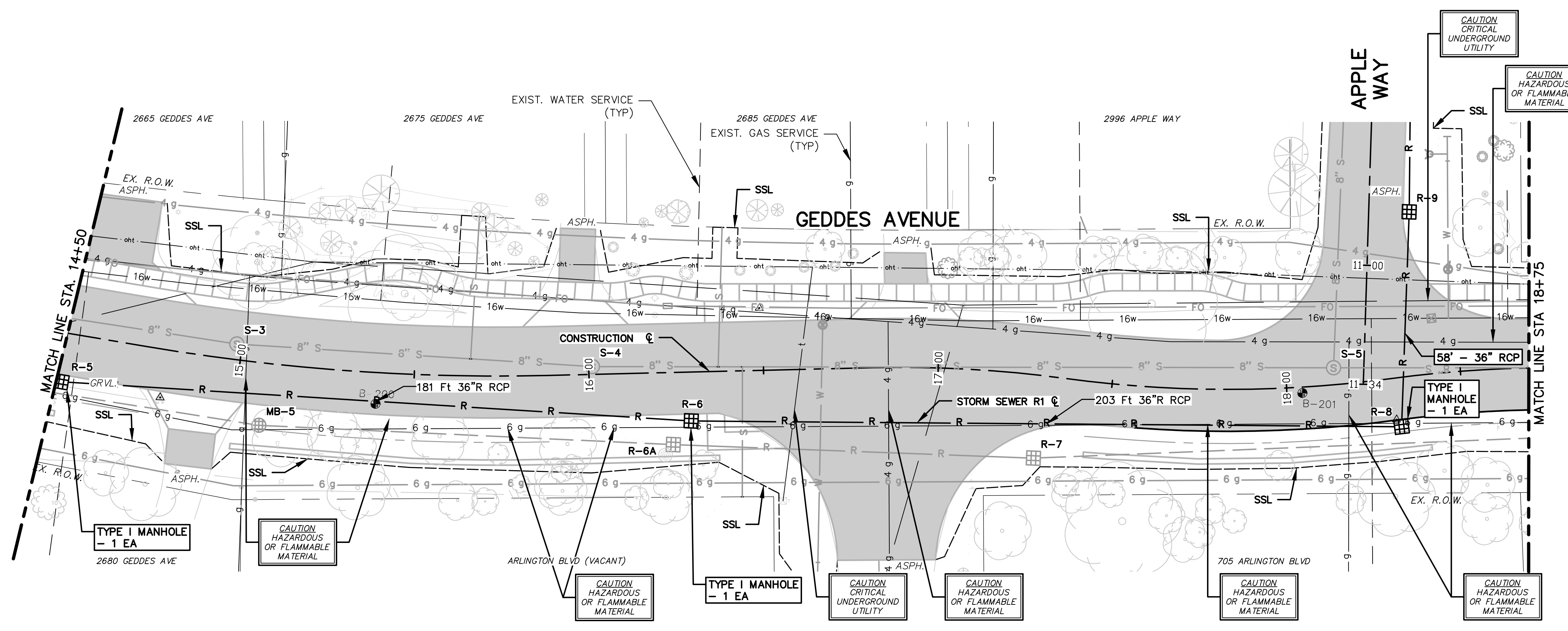
ISSUED FOR BIDS	FINAL PLAN SUBMITTAL		
FINAL REVIEW SUBMITTAL	PRELIMINARY PLAN SUBMITTAL		
REV.	DESCRIPTION	DATE	

CITY OF ANN ARBOR
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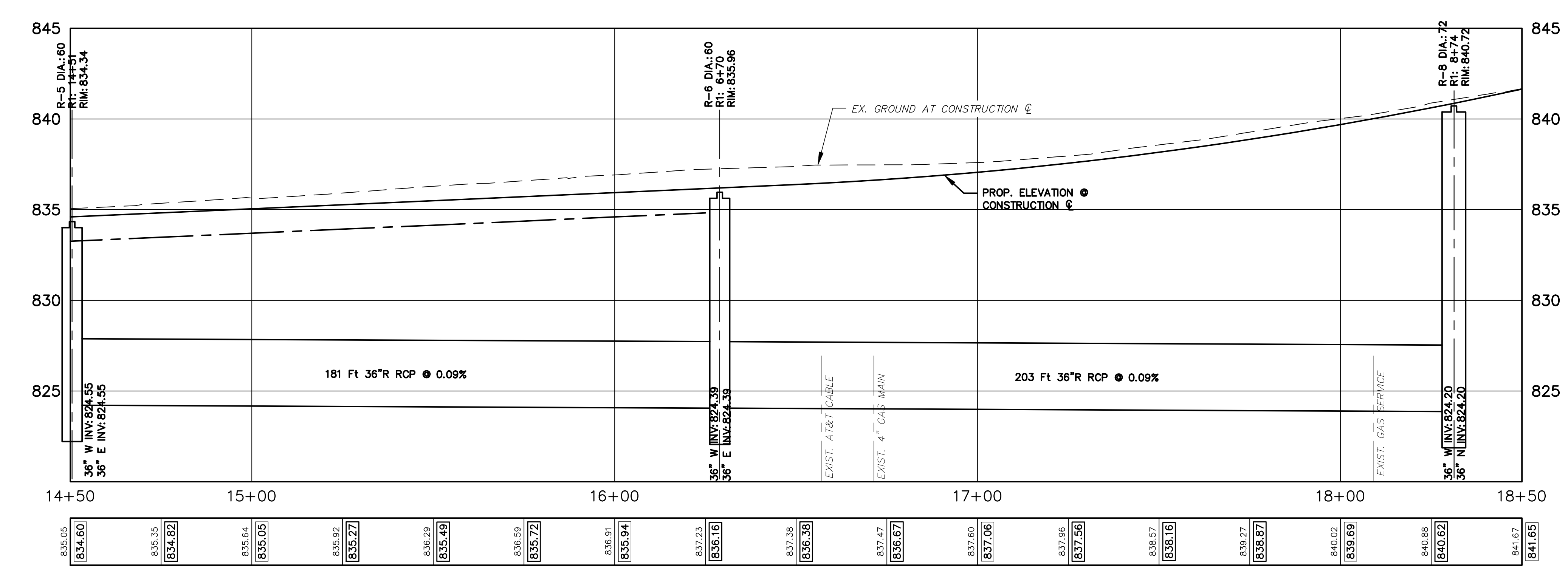
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
STORM SEWER PLAN AND PROFILE
STA. 14+50 TO STA. 18+75

SCALE PLAN: 1"=20'
PROFILE: 1"=4'
DRAWING No. STM-02
SHEET No.



STORM SEWER STRUCTURE TABLE

STRUCTURE	STATION	RIM ELEV.	DEPTH	ADD'L DEPTH	DIA.	TYPE	INVERTS	COVER TYPE
R-5	14+50.51	834.34	11.79	1.79	60	C.B.	36" W 824.55 36" E 824.55	D
R-6	16+28.95	835.96	13.57	3.57	60	C.B.	36" W 824.39 36" E 824.39	D
R-8	18+31.26	840.72	18.52	8.52	72	C.B.	36" W 824.20 36" N 824.20	K

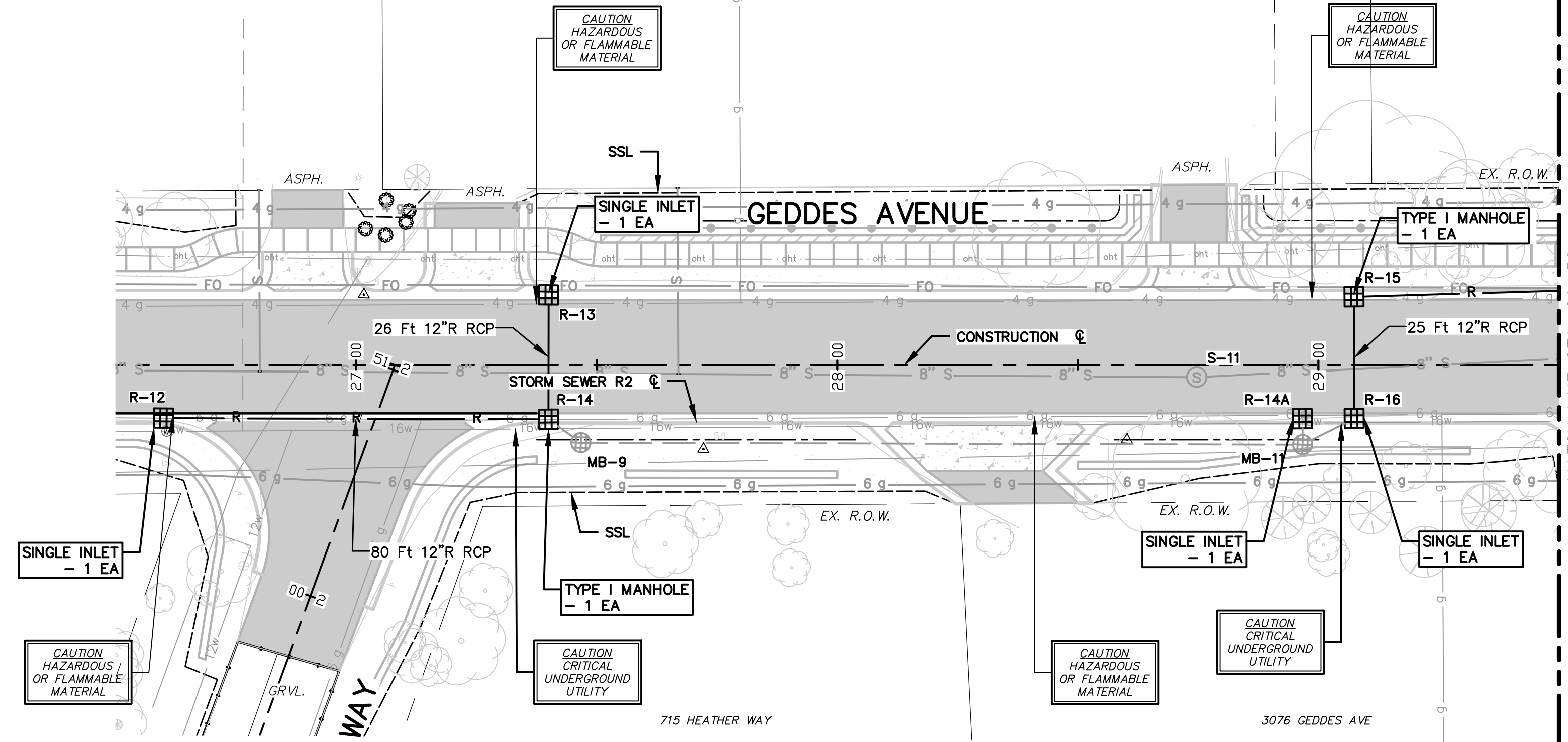


835.05	834.60	835.35	834.82	835.64	835.05	835.92	835.27	835.29	835.49	835.59	835.72	836.91	835.94	837.23	836.16	837.38	836.38	837.47	836.67	837.60	837.06	837.96	837.95	838.57	838.16	839.27	838.67	840.02	839.69	840.88	840.62	841.67	841.65
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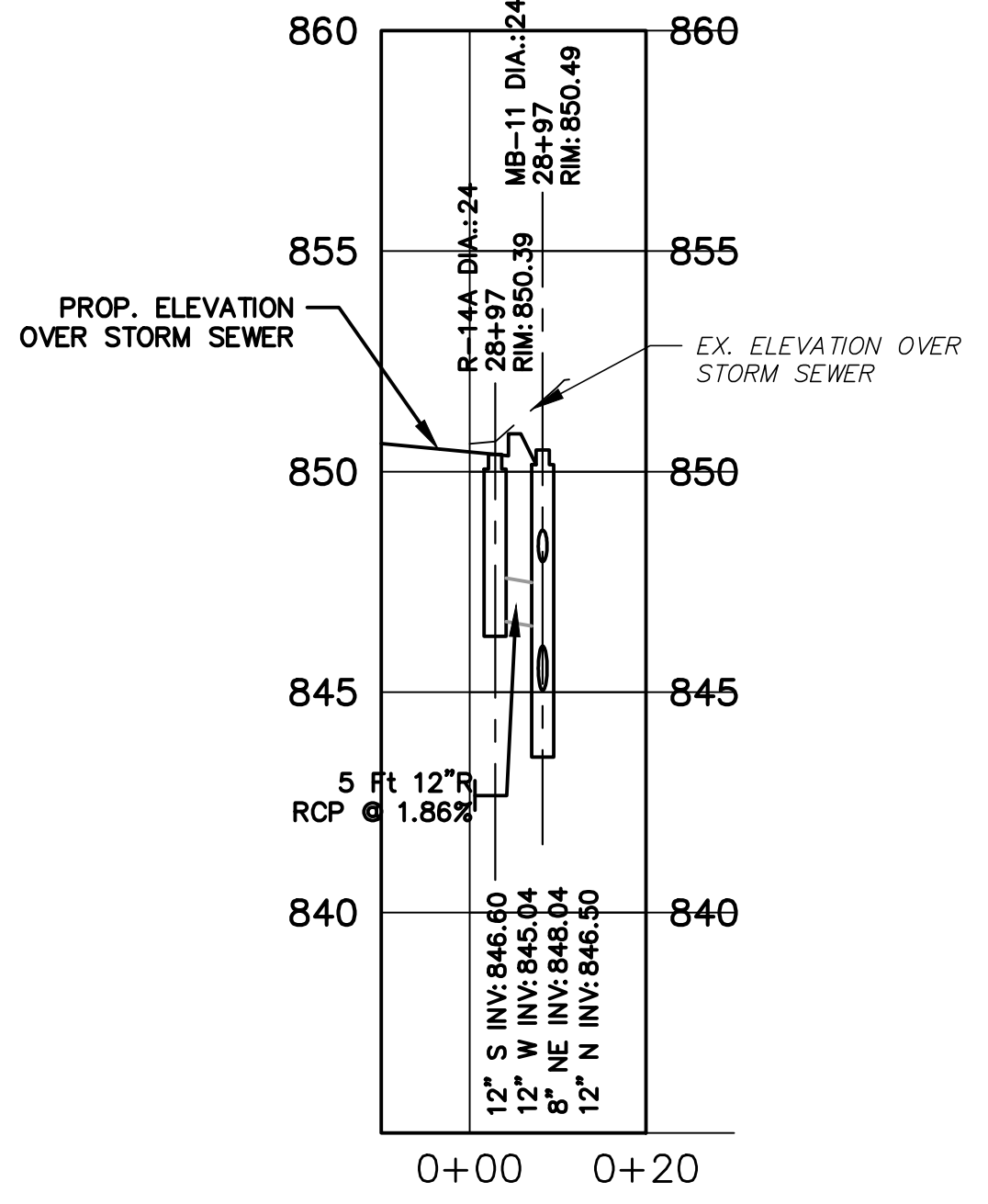
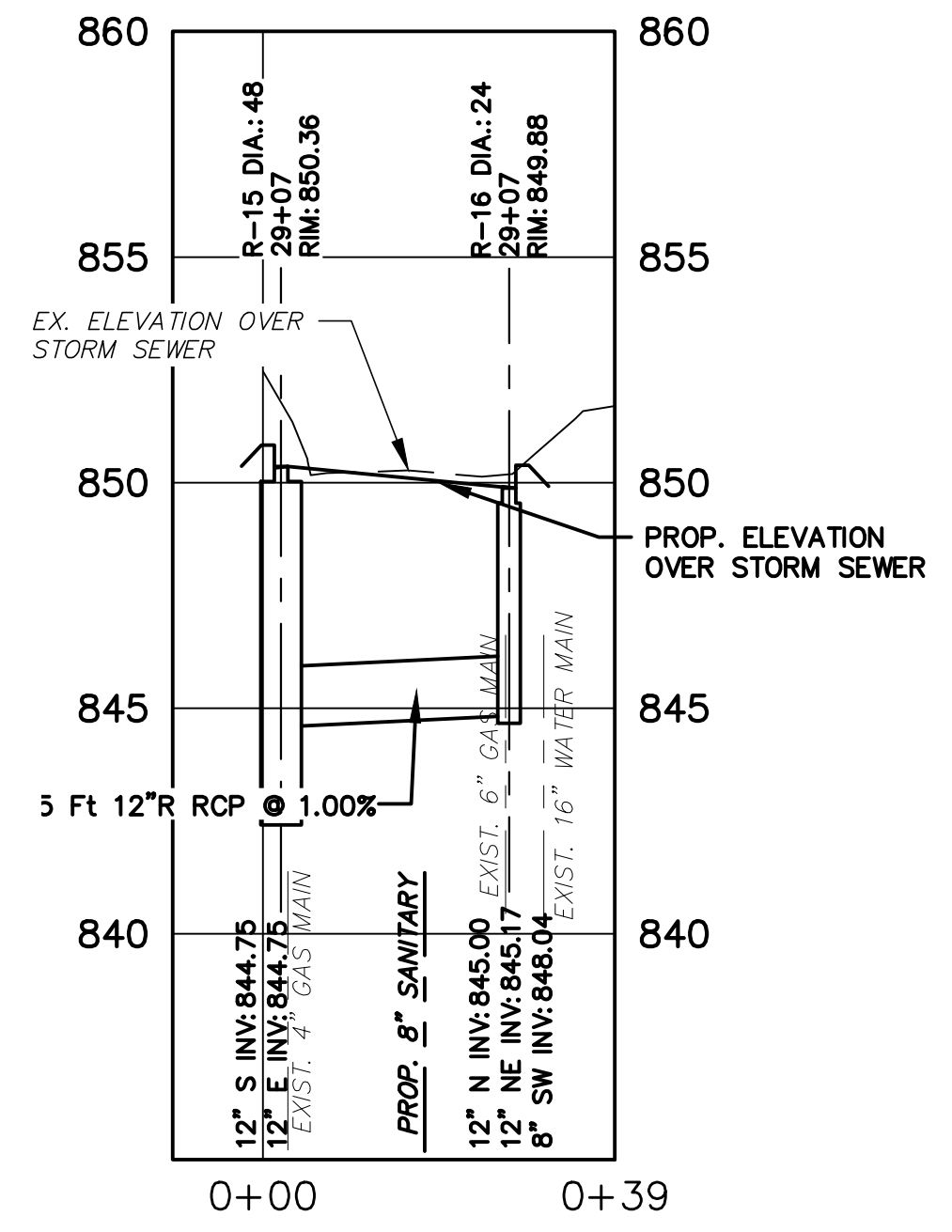
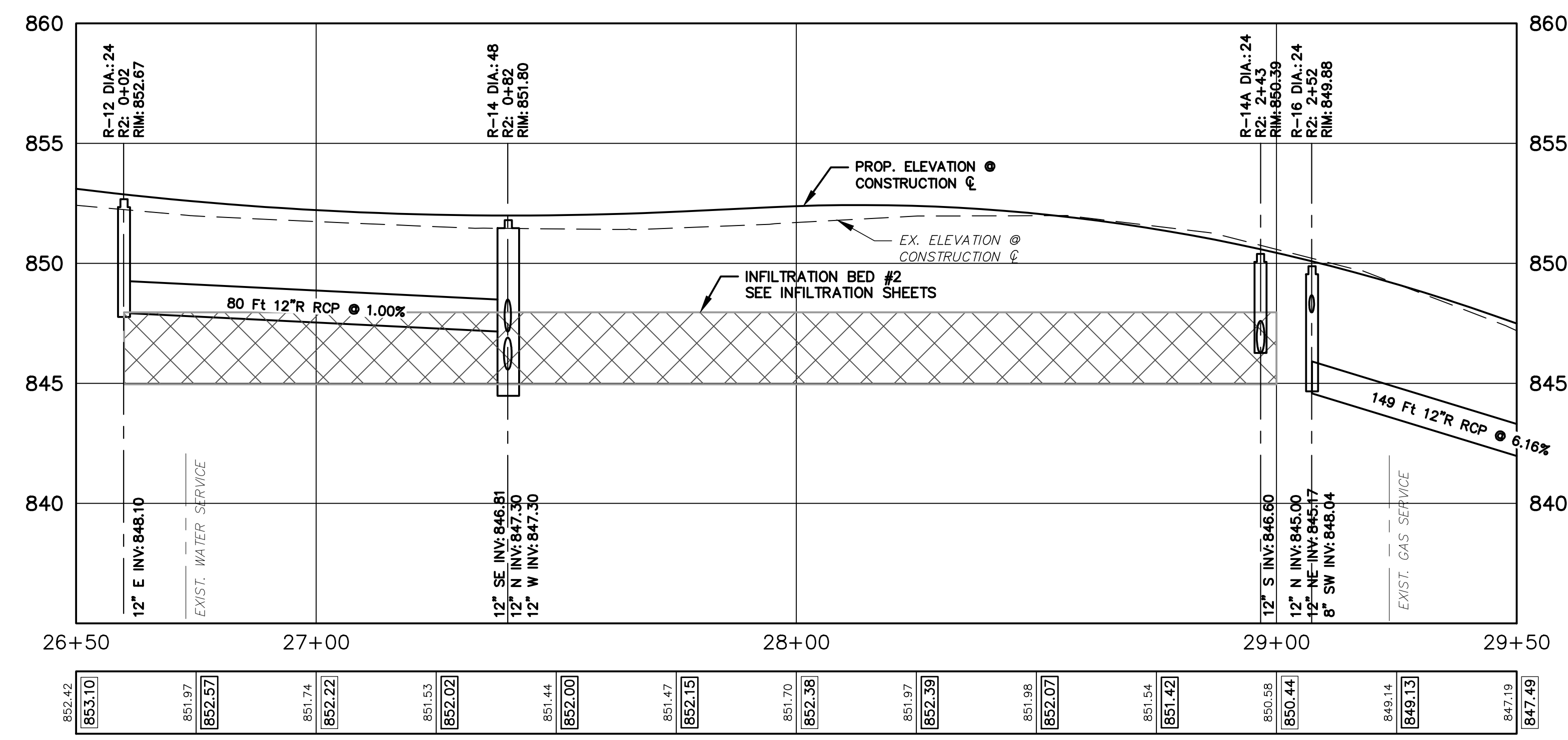
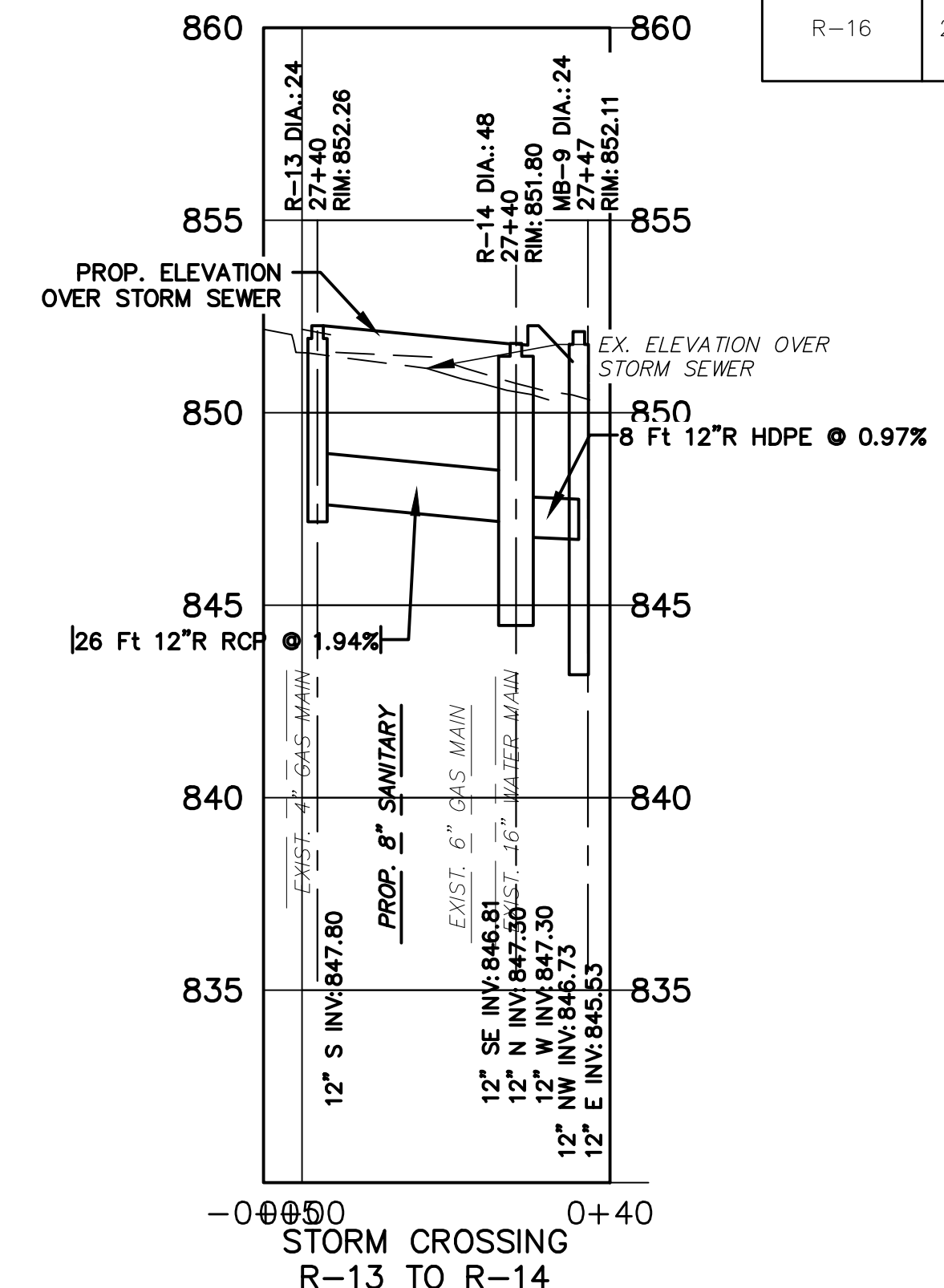
3055 GEDDES AVE

3063 GEDDES AVE

640 RIVERVIEW DR



STORM SEWER STRUCTURE TABLE								
STRUCTURE	STATION	RIM ELEV.	DEPTH	ADD'L DEPTH	DIA.	TYPE	INVERTS	COVER TYPE
R-12	26+60.01	852.67	4.57	-	24	INLET	12" E 848.10	K
R-14	27+40.01	851.80	6.99	-	48	C.B.	12" SE 846.81 12" N 847.30 12" W 847.30	K
R-13	27+40.04	852.26	4.76	-	24	INLET	12" S 847.80	K
R-14A	28+96.68	850.39	3.79	-	24	C.B.	12" S 846.60	K
R-15	29+07.38	850.36	7.61	-	48	C.B.	12" S 844.75 12" E 844.75	K
R-16	29+07.41	849.88	4.88	-	24	C.B.	12" N 845.00 12" NE 845.17 8" SW 848.04	K



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

ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	APR. 22, 2015	ALP/MIN	CEH	DRAWN	CHECKED
FINAL REVIEW SUBMITTAL	FINAL REVIEW SUBMITTAL	MAR. 26, 2015	ALP/MIN	CEH		
PRELIMINARY PLAN SUBMITTAL	PRELIMINARY PLAN SUBMITTAL	MAR. 13, 2015	ALP/MIN	CEH		
		JAN. 29, 2015	ALP/MIN	CEH		
					DATE	

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CITY OF ANN ARBOR MICHIGAN

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
STORM SEWERPLAN AND PROFILE
STA. 26+50 TO STA. 29+50

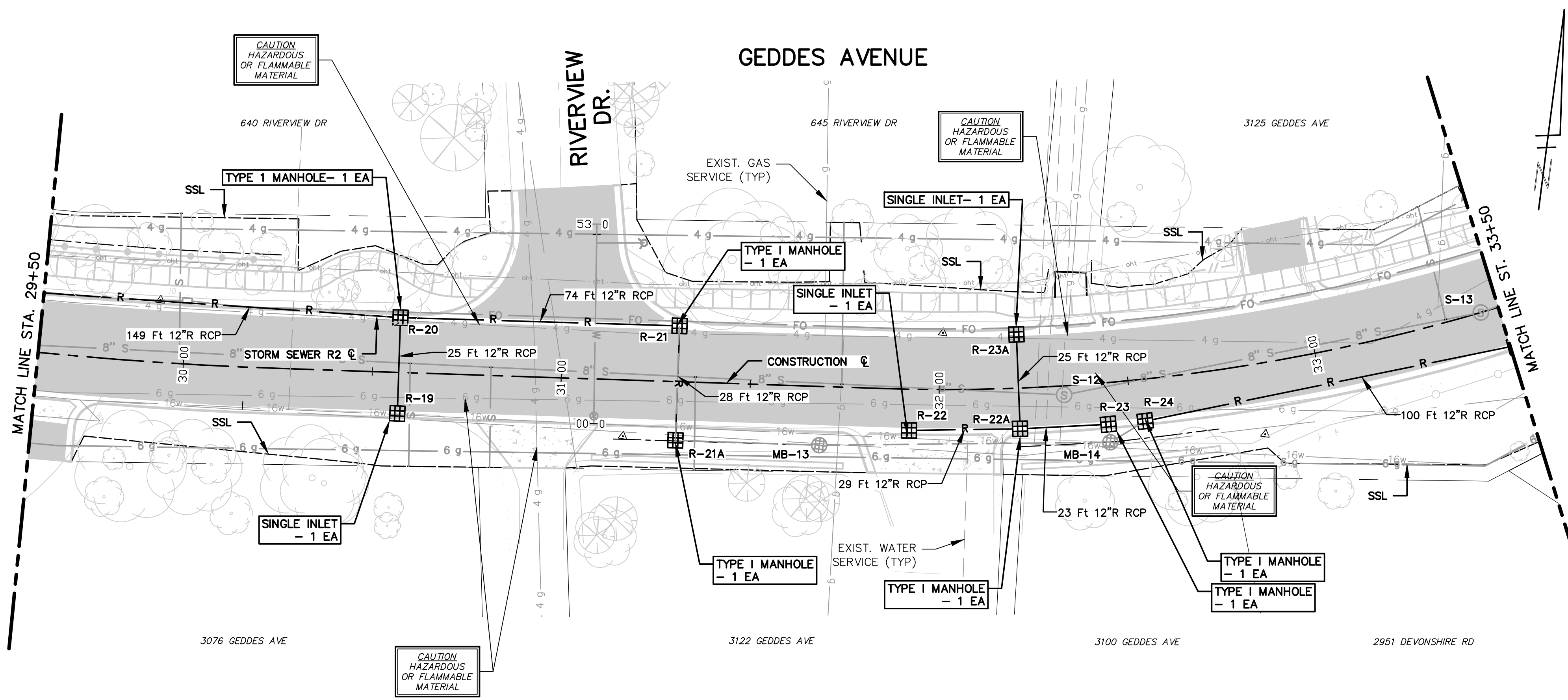
SCALE PLAN: 1"=20'
PROFILE: 1"=4'

DRAWING No. **STM-03**

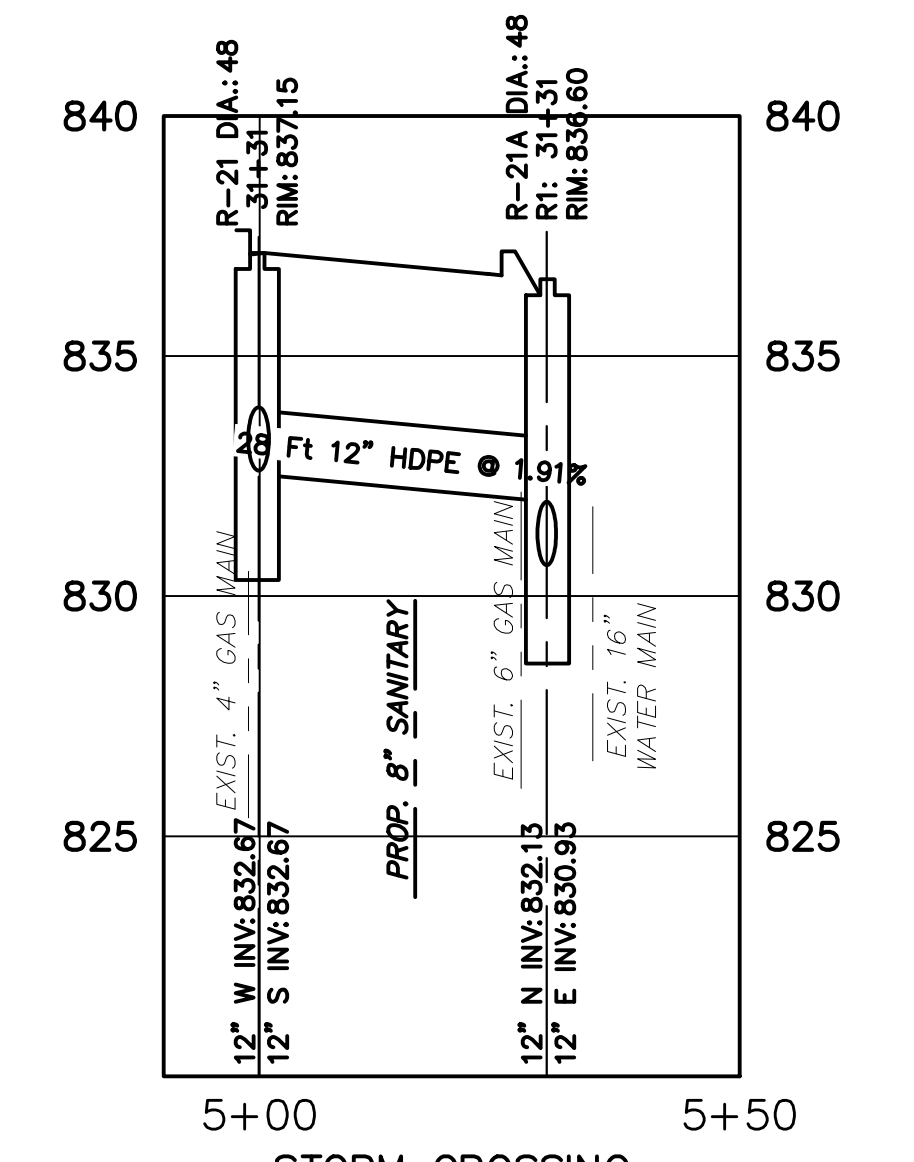
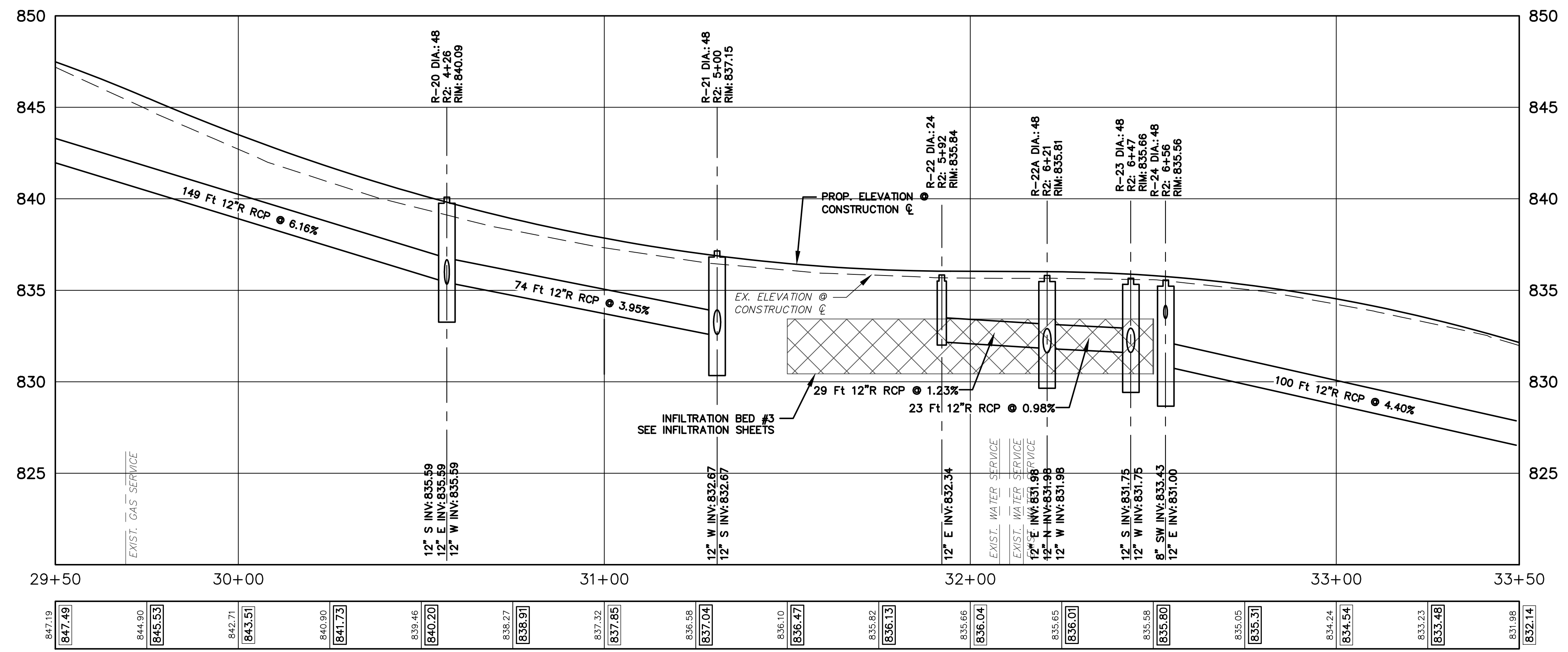
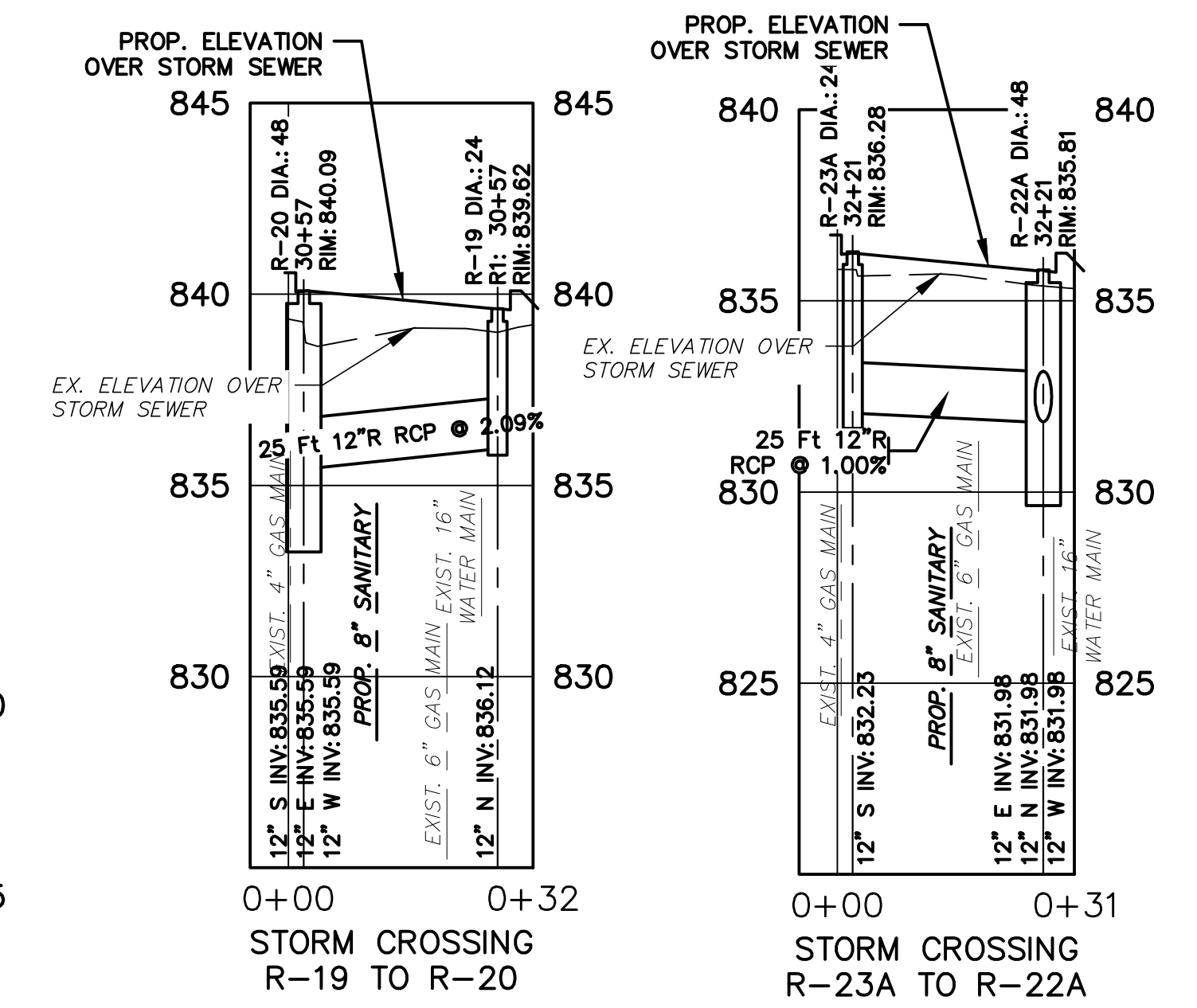
SHEET No. **66 OF 187**



Know what's below.
Call before you dig.



STRUCTURE	STATION	RIM ELEV.	DEPTH	ADD'L DEPTH	DIA.	TYPE	INVERTS	COVER TYPE
R-19	30+56.99	839.62	3.50	-	24	INLET	12" N 836.12	K
R-20	30+57.00	840.09	6.50	-	48	C.B.	12" S 835.59 12" E 835.59 12" W 835.59	K
R-21	31+30.84	837.15	6.48	-	48	C.B.	12" W 832.67 12" S 832.67	K
R-22	31+92.24	835.84	3.50	-	24	INLET	12" E 832.34	K
R-23A	32+20.97	836.28	4.28	-	24	INLET	12" S 832.23	K
R-22A	32+20.99	835.81	5.83	-	48	C.B.	12" E 831.98 12" N 831.98 12" W 831.98	K
R-23	32+43.90	835.66	5.91	-	48	C.B.	12" S 831.75 12" W 831.75	K
R-24	32+53.44	835.56	6.56	-	48	C.B.	8" SW 833.43 12" E 831.00	K



ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	FINAL REVIEW SUBMITTAL	PRELIMINARY PLAN SUBMITTAL	REV.	DESCRIPTION
APR. 22, 2015	MAR. 26, 2015	MAR. 13, 2015	JAN. 29, 2015		DATE
ALP/AMN	ALP/AMN	ALP/AMN	ALP/AMN		DRAWN
CEH	CEH	CEH	CEH		CHECKED

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GEDES AVENUE IMPROVEMENTS
STORM SEWER PLAN AND PROFILE
STA. 29+50 TO STA. 33+50
SCALE PLAN: 1"=20'
PROFILE: 1"=4'
DRAWING No. STM-04
SHEET No. 67 OF 187



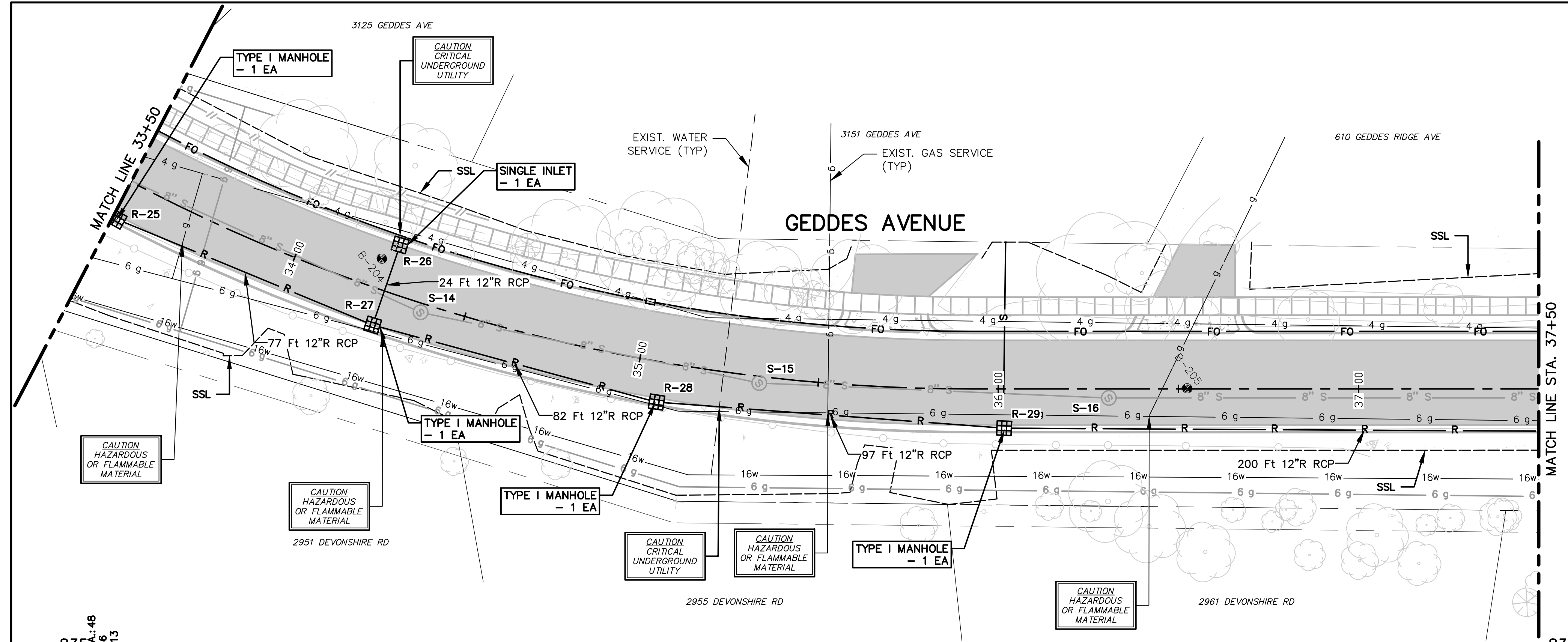
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
1	ISSUED FOR BIDS	APR. 22, 2015	ALP/AMN	CEH
2	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/AMN	CEH
3	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/AMN	CEH
4	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/AMN	CEH

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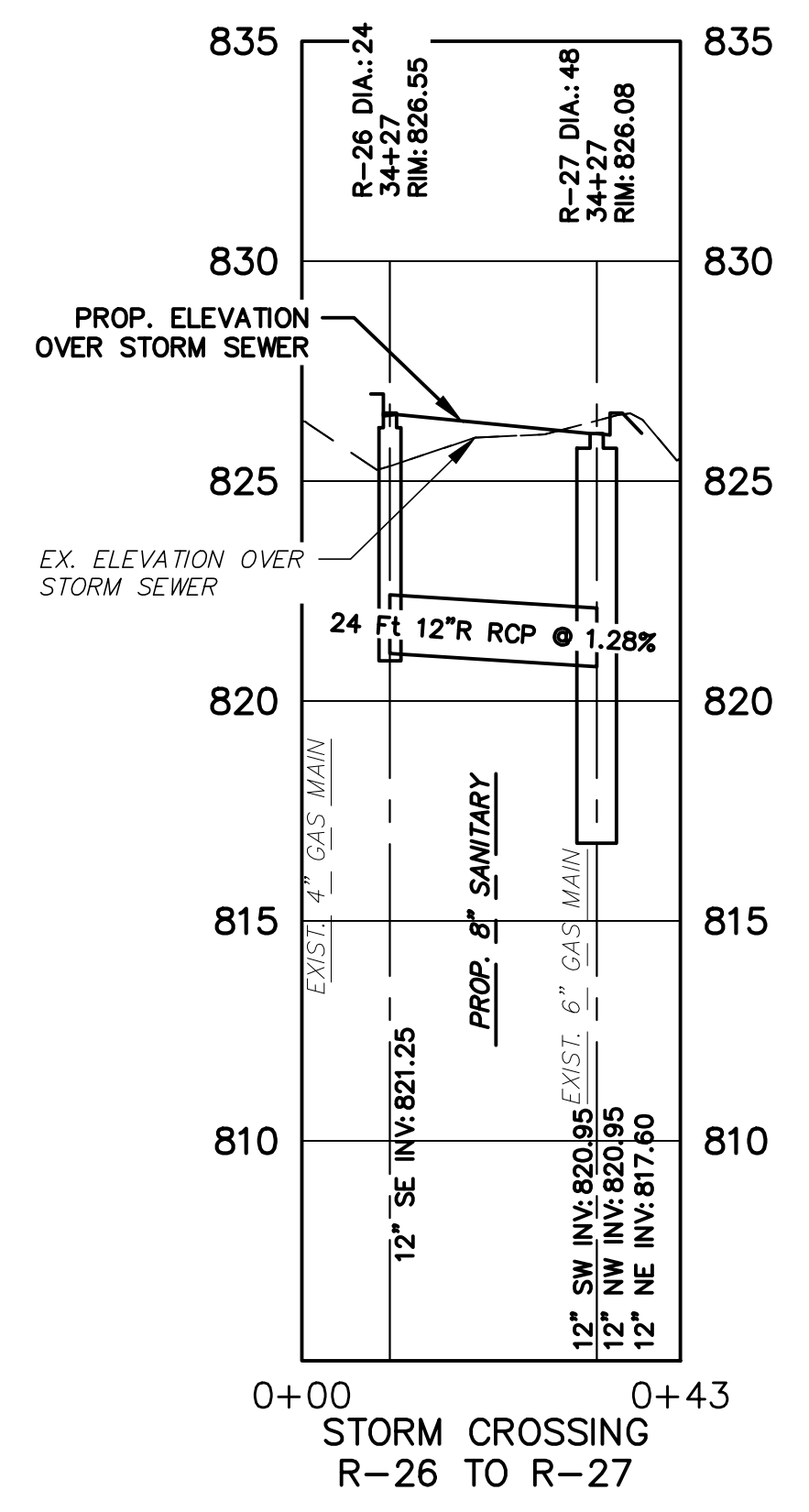
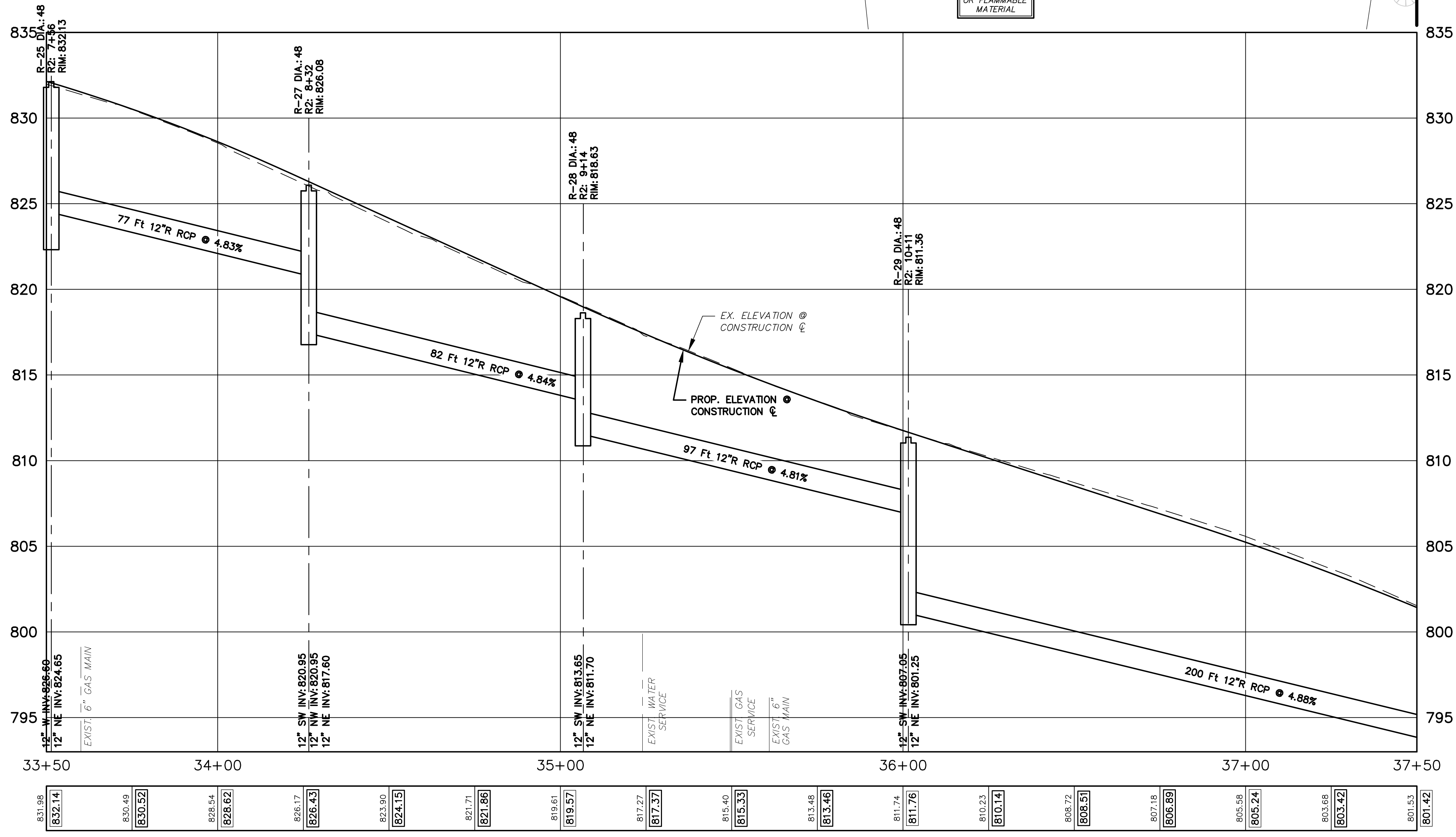


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
STORM SEWER PLAN AND PROFILE
STA. 33+50 TO STA. 37+50

SCALE PLAN: 1"=20'
PROFILE: 1"=4'
DRAWING No. STM-05



STRUCTURE	STATION	RIM ELEV.	DEPTH	ADD'L DEPTH	DIA.	TYPE	INVERTS	COVER TYPE
R-25	33+51.41	832.13	9.48	-	48	C.B.	12" W 826.60 12" NE 824.65	K
R-26	34+26.57	826.55	5.30	-	24	INLET	12" SE 821.25	K
R-27	34+26.57	826.08	8.98	-	48	C.B.	12" SW 820.95 12" NW 820.95 12" NE 817.60	K
R-28	35+06.60	818.63	7.43	-	48	C.B.	12" SW 813.65 12" NE 811.70	K
R-29	36+01.58	811.36	10.61	0.61	48	C.B.	12" SW 807.05 12" NE 801.25	K





Know what's below.
Call before you dig.

ISSUED FOR BIDS
FINAL PLAN SUBMITTAL
FINAL REVIEW SUBMITTAL
PRELIMINARY PLAN SUBMITTAL

APR. 22, 2015
MAR. 26, 2015
MAR. 13, 2015
JAN. 29, 2015

ALP/MIN
ALP/MIN
ALP/MIN
ALP/MIN

CEH
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CEH
CEH

DATE
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DATE
DATE

REV. DESCRIPTION

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STATION
DATE

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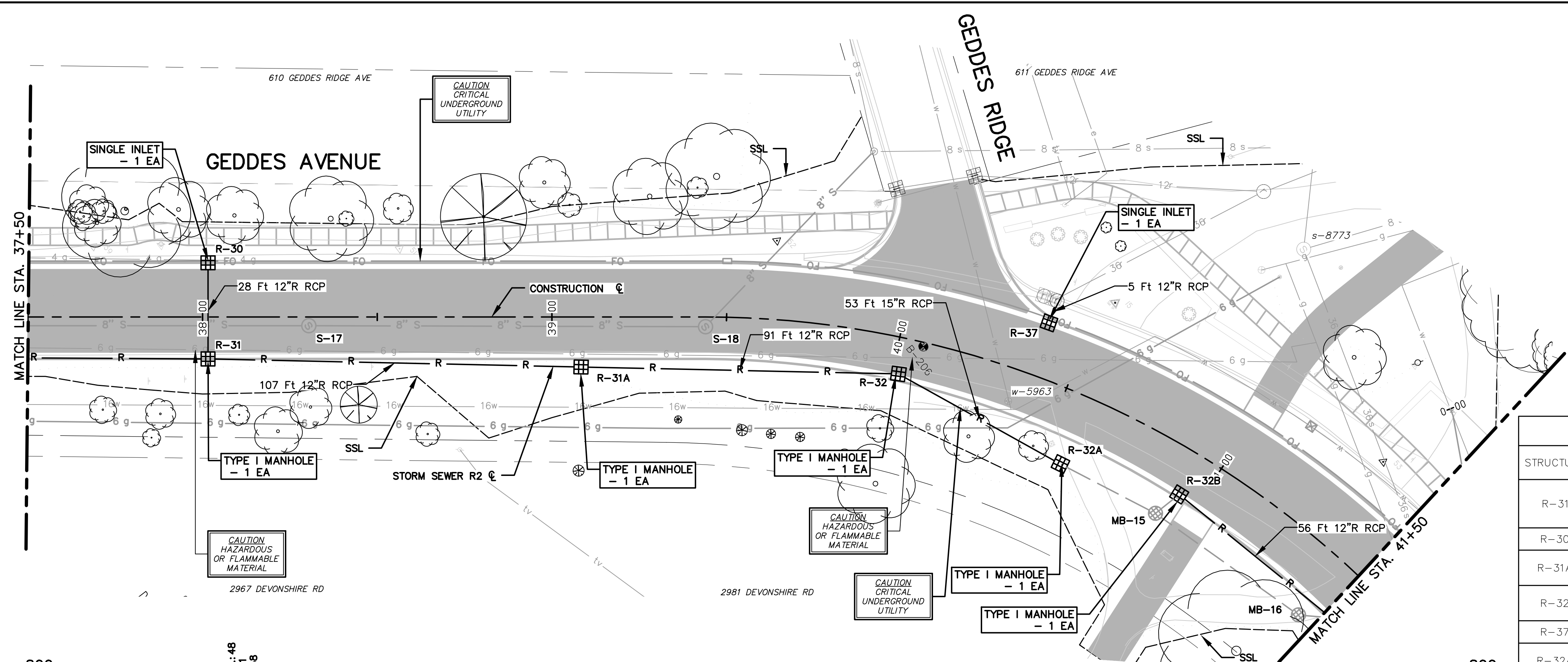
DATE

DATE

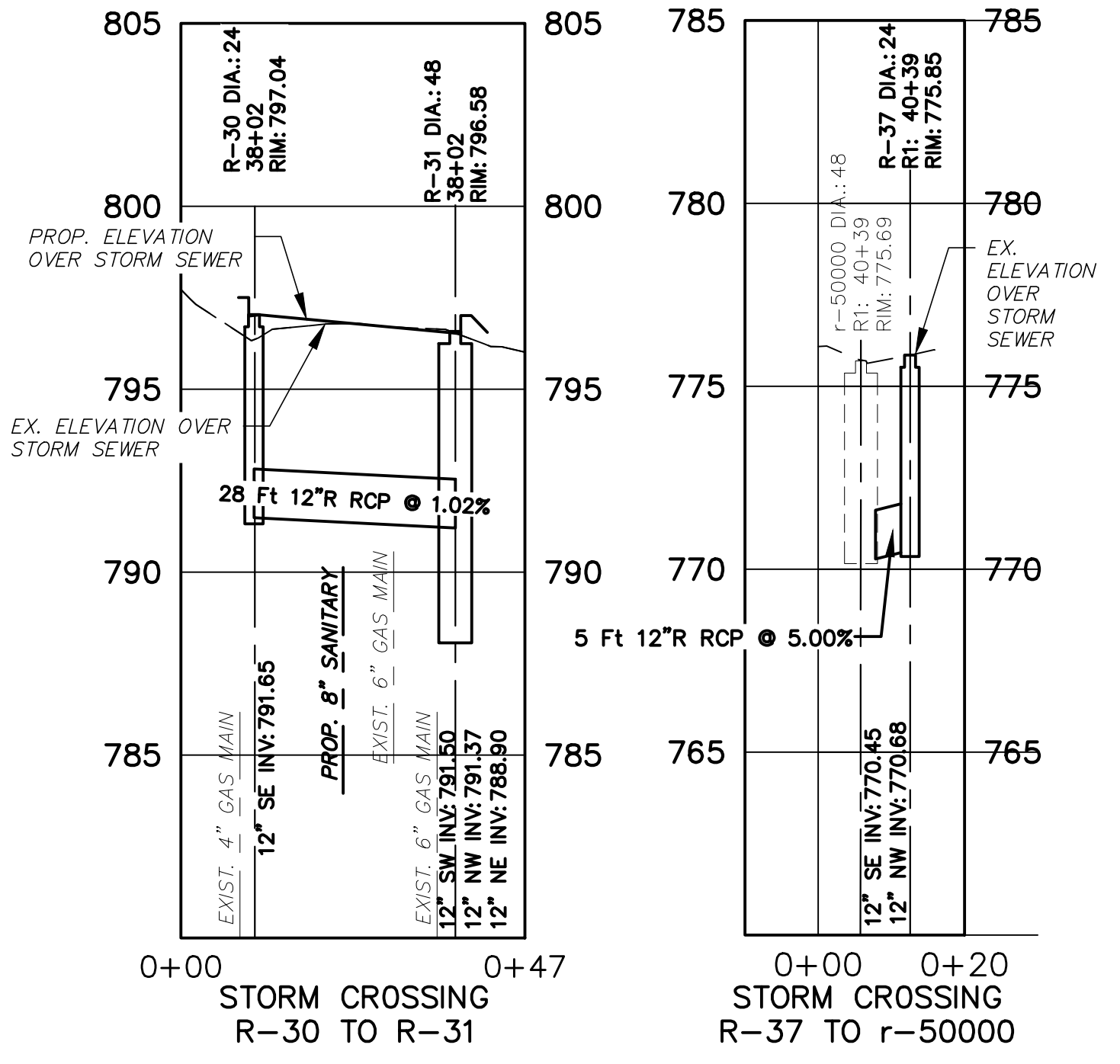
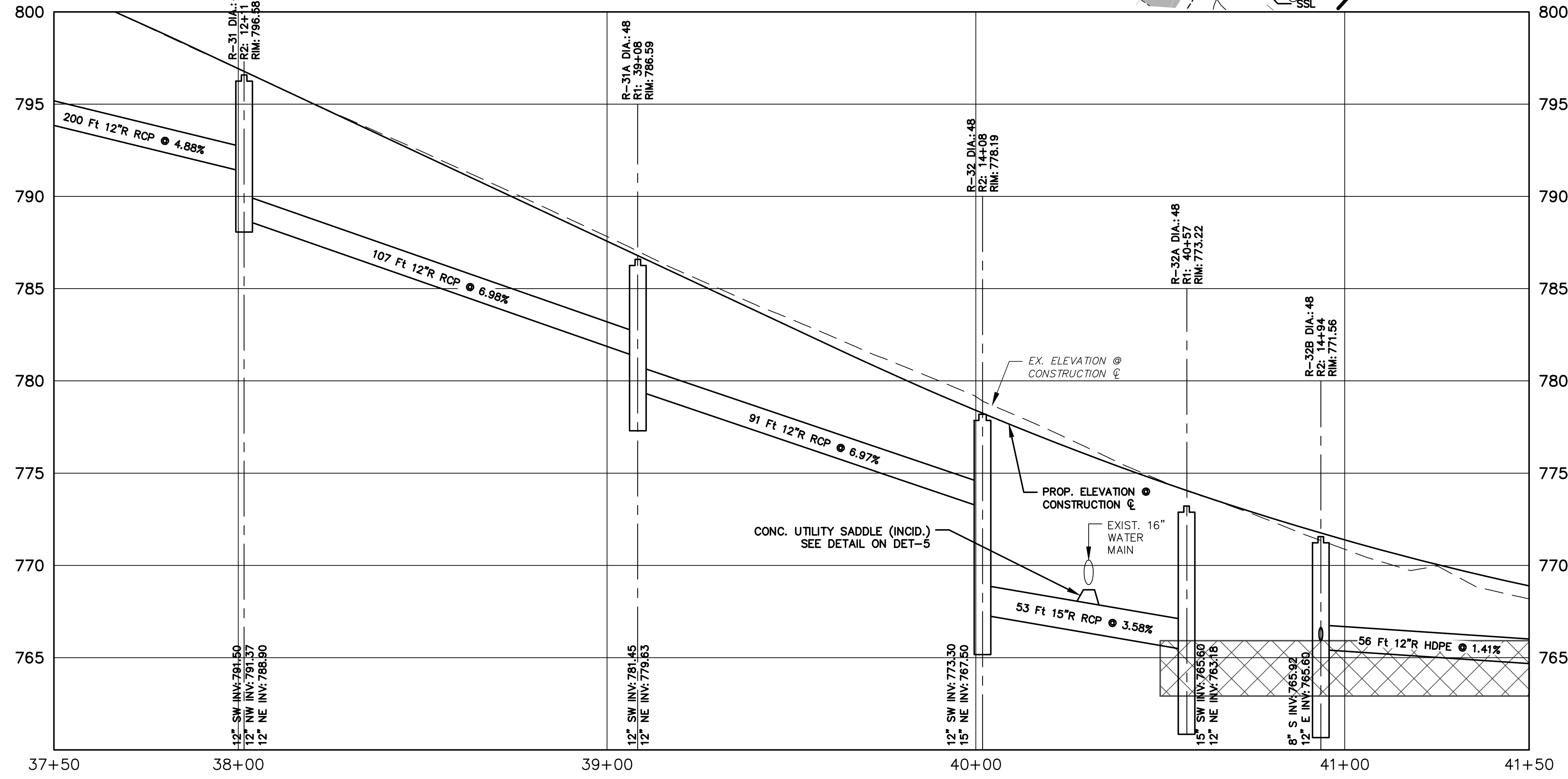
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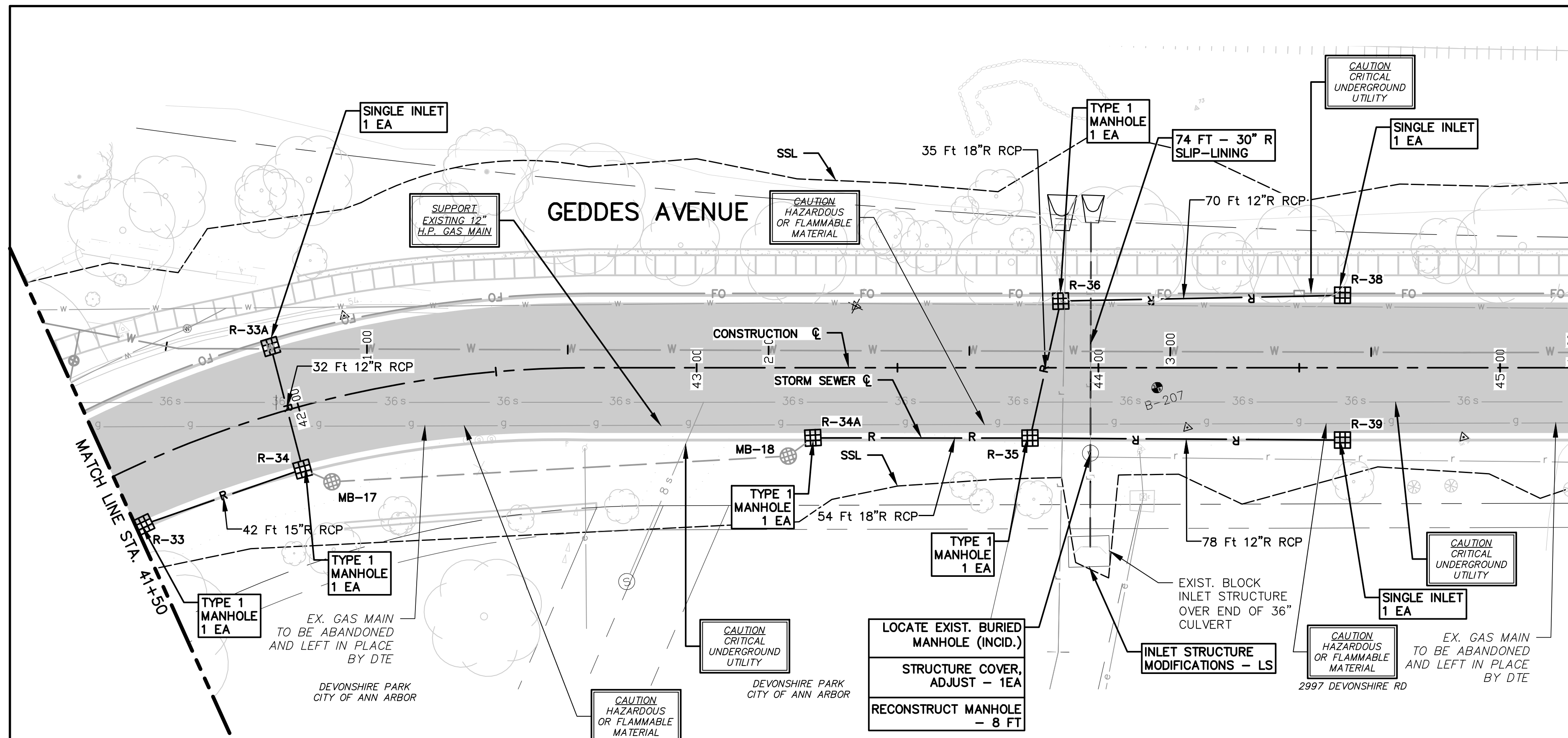


STORM SEWER STRUCTURE TABLE								
STRUCTURE	STATION	RIM ELEV.	DEPTH	ADD'L DEPTH	DIA.	TYPE	INVERTS	COVER TYPE
R-31	38+01.57	796.58	8.18	-	48	C.B.	12" SW 791.50 12" NW 791.37 12" NE 788.90	K
R-30	38+01.57	797.04	5.39	-	24	INLET	12" SE 791.65	K
R-31A	39+08.33	786.59	8.96	-	48	C.B.	12" SW 781.45 12" NE 779.63	K
R-32	40+01.81	778.19	12.69	2.69	48	C.B.	12" SW 773.30 15" NE 767.50	K
R-37	40+38.89	775.85	5.17	-	24	INLET	12" NW 770.68	K
R-32A	40+57.13	773.22	12.04	2.04	48	C.B.	15" SW 765.60 12" NE 763.18	G
R-32B	40+93.54	771.56	10.56	0.56	48	C.B.	8" S 765.92 12" E 765.60	K

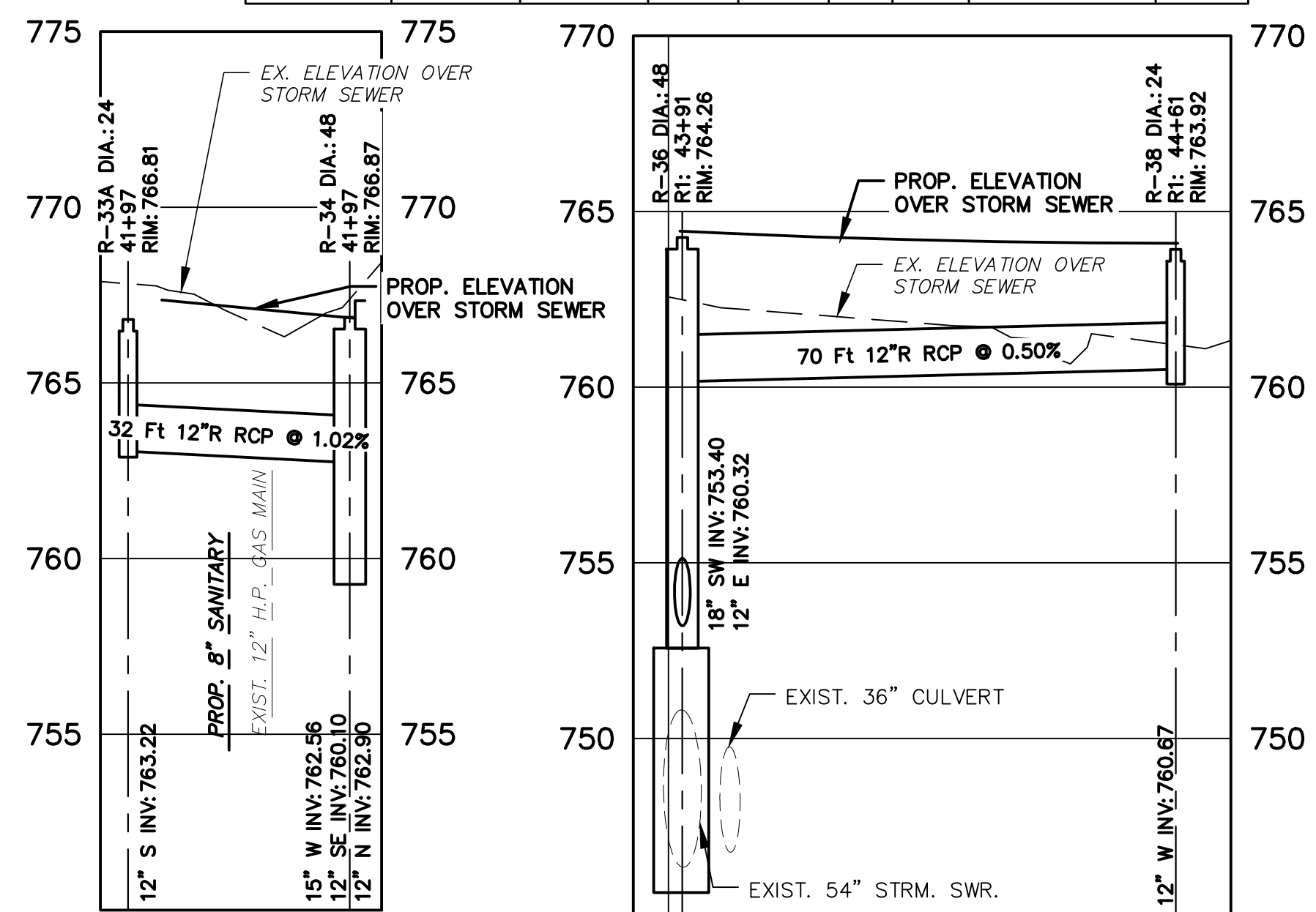


801.53	799.22	796.91	794.61	792.41	790.14	787.82	785.48	783.34	781.23	779.14	776.87	774.61	772.80	770.88	769.96	768.19
801.42	799.25	796.92	794.58	792.25	789.91	787.57	785.23	782.90	780.56	778.40	776.39	774.55	772.88	771.38	770.05	768.99

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 SCALE PLAN: 1"=20' PROFILE: 1"=4'
 GEDDES AVENUE IMPROVEMENTS
 STORM SEWER PLAN AND PROFILE
 STA. 37+50 TO STA. 41+50
 DRAWING No. STM-06
 SHEET No. 69 OF 187

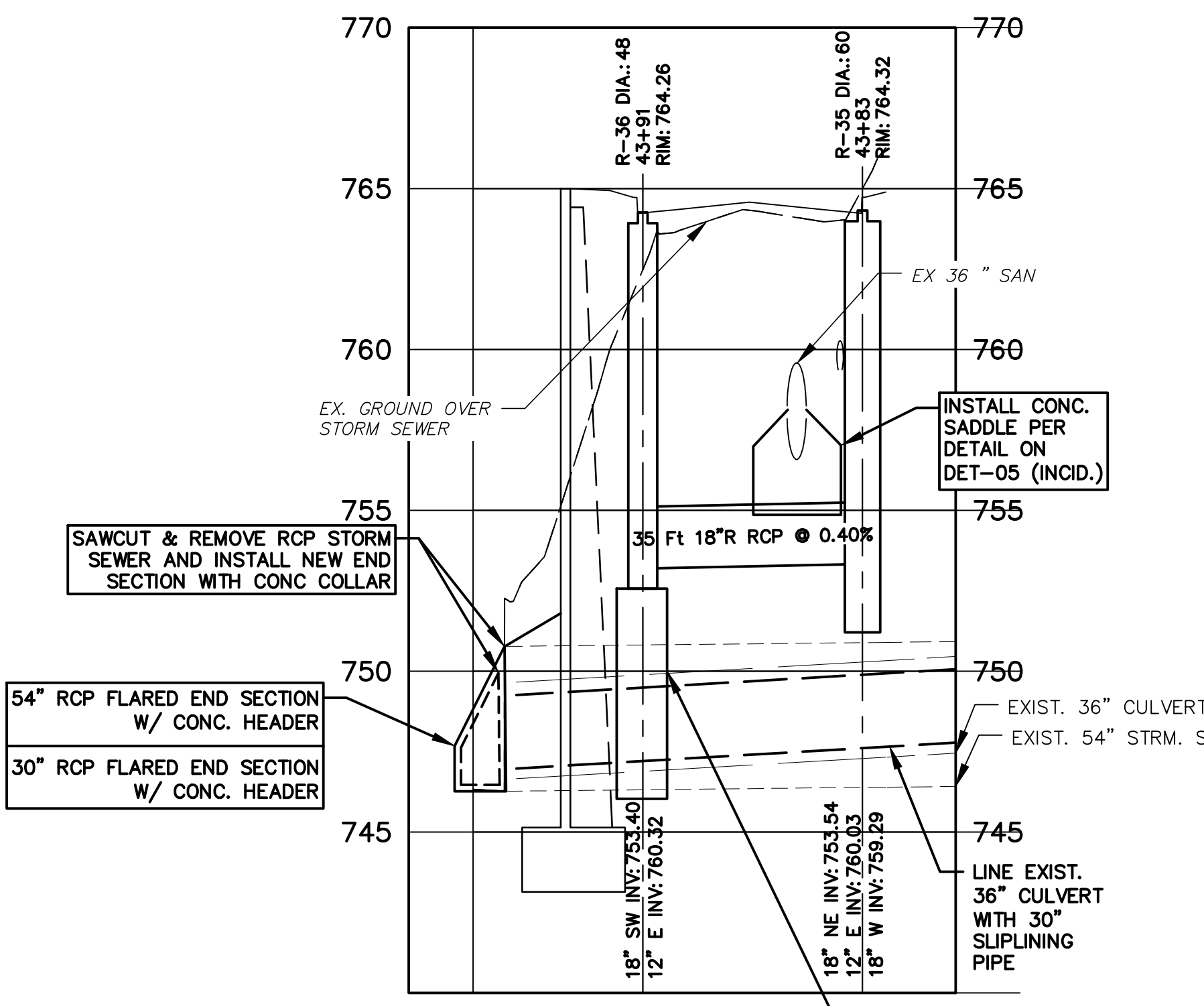
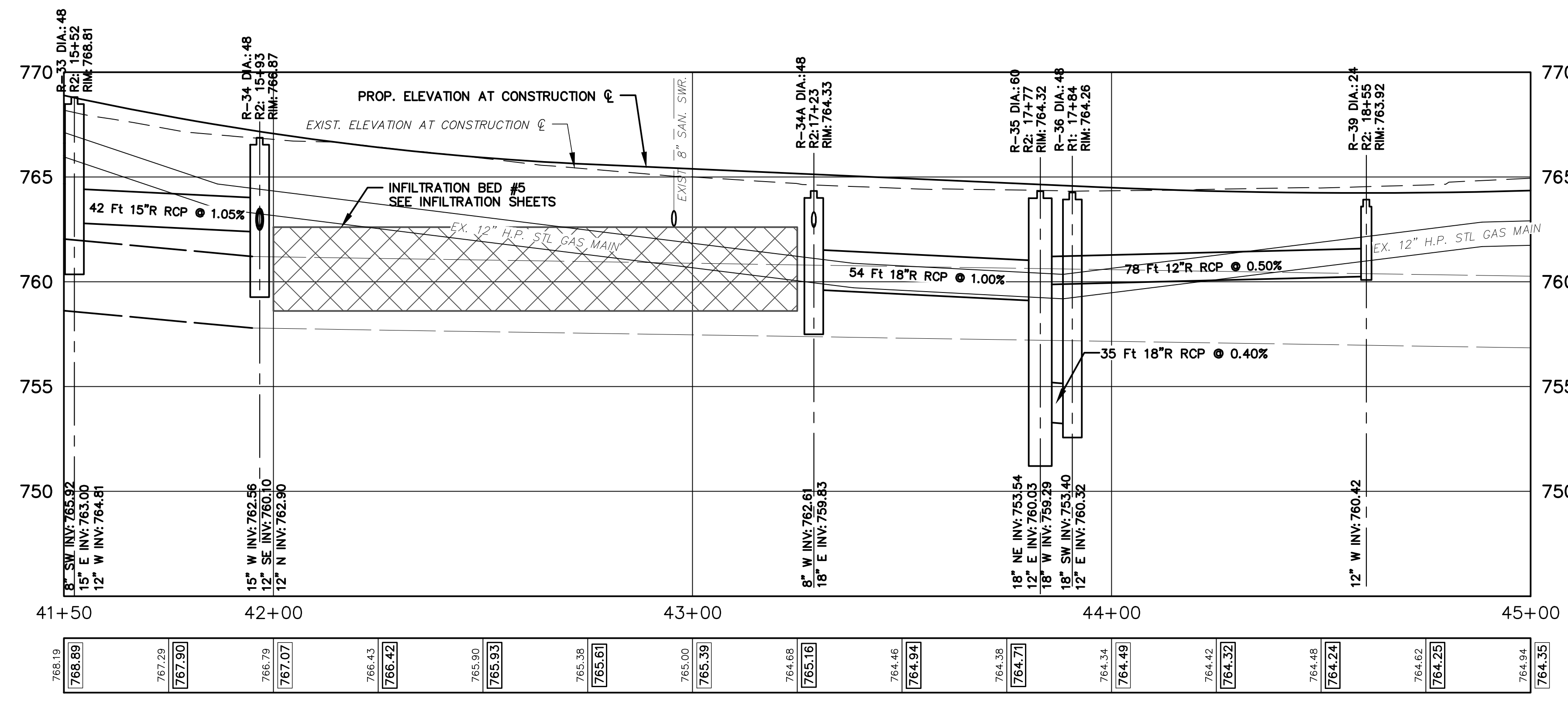


STORM SEWER STRUCTURE TABLE								
STRUCTURE	STATION	RIM ELEV.	DEPTH	ADD'L DEPTH	DIA.	TYPE	INVERTS	COVER TYPE
R-33	41+52.51	768.81	8.12	-	48	C.B.	8" SW 765.92 15" E 763.00 12" W 764.81	K
R-34	41+96.72	766.87	7.27	-	48	C.B.	15" W 762.56 12" SE 760.10 12" N 762.90	K
R-33A	41+97.46	766.81	3.59	-	24	INLET	12" S 763.22	K
R-34A	43+28.95	764.33	6.50	-	48	C.B.	8" W 762.61 18" E 759.83	K
R-35	43+82.98	764.32	12.78	2.78	60	C.B.	18" NE 753.54 12" E 760.03 18" W 759.29	K
R-36	43+90.63	764.26	11.36	1.36	48	C.B.	18" SW 753.40 12" E 760.32	K
R-39	44+60.79	763.92	3.50	-	24	INLET	12" W 760.42	K
R-38	44+60.79	763.92	3.50	-	24	INLET	12" W 760.67	K




0+40
STORM CROSSING
R-33A TO R-34

0+00 R-38 TO R-36 0+80




0+00 0+75
STORM CROSSING
R-35 TO R-36
MANHOLE BASE, C.I.P. - 1EA
SEE DETAIL ON DET-1



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REV.	DESCRIPTION	DATE	DRAWN	CHECKED
APR. 22, 2015	ISSUED FOR BIDS	APR. 22, 2015	ALP/MNN	CEH
MAR. 26, 2015	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/MNN	CEH
MAR. 13, 2015	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/MNN	CEH
JAN. 29, 2015	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/MNN	CEH



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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
STORM SEWER PLAN AND PROFILE
STA. 41+50 TO STA. 45+00

SCALE PLAN: 1"=20'
PROFILE: 1"=4'

DRAWING No. STM-07
SHEET No. 70 OF 187



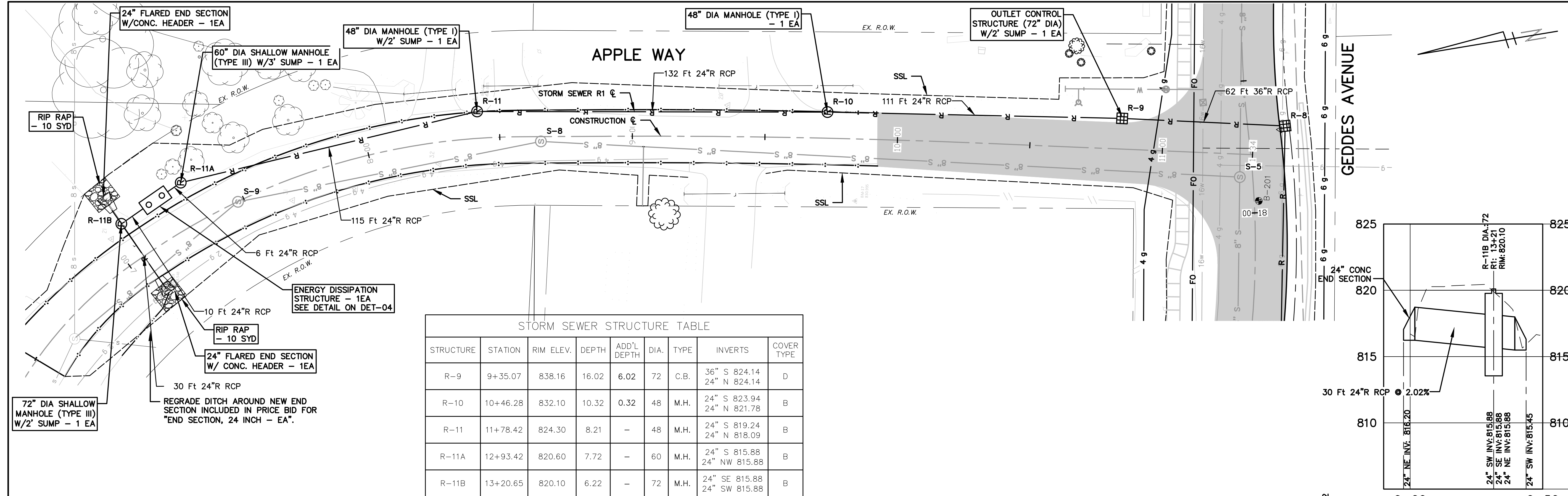
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
1	ISSUED FOR BIDS	APR. 22, 2015	ALP/AMN	CEH
2	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/AMN	CEH
3	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/AMN	CEH
4	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/AMN	CEH

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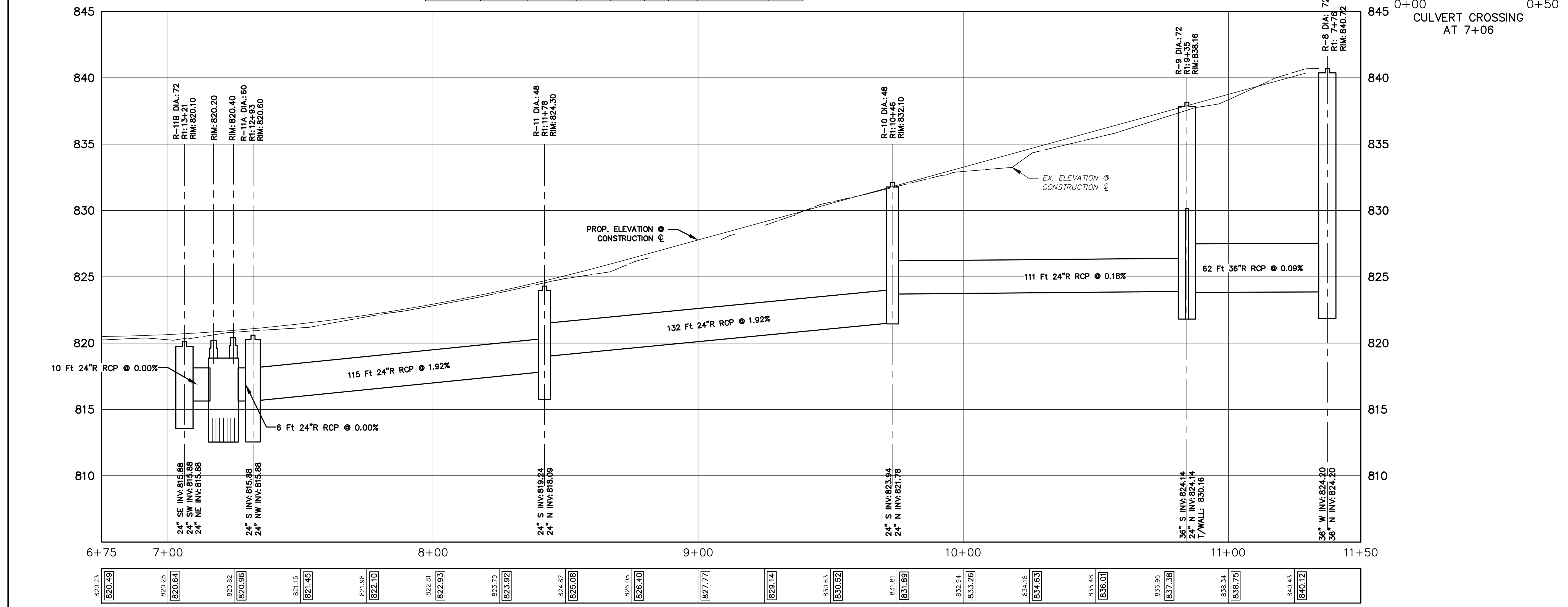
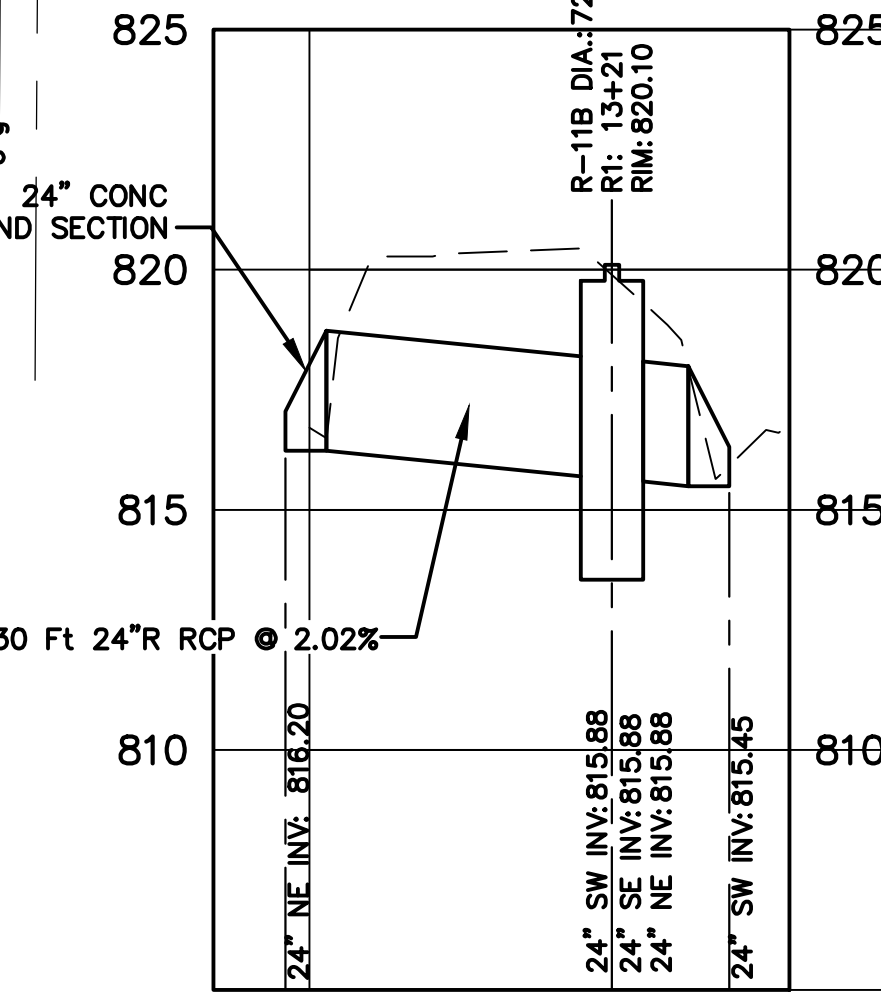


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
STORM SEWER PLAN AND PROFILE
STA. 7+00 TO STA. 11+34

SCALE PLAN: 1"=20'
PROFILE: 1"=4'
DRAWING No. STM-08



STRUCTURE	STATION	RIM ELEV.	DEPTH	ADD'L DEPTH	DIA.	TYPE	INVERTS	COVER TYPE
R-9	9+35.07	838.16	16.02	6.02	72	C.B.	36" S 824.14 24" N 824.14	D
R-10	10+46.28	832.10	10.32	0.32	48	M.H.	24" S 823.94 24" N 821.78	B
R-11	11+78.42	824.30	8.21	-	48	M.H.	24" S 819.24 24" N 818.09	B
R-11A	12+93.42	820.60	7.72	-	60	M.H.	24" S 815.88 24" NW 815.88	B
R-11B	13+20.65	820.10	6.22	-	72	M.H.	24" SE 815.88 24" SW 815.88	B



820.23	820.49	820.25	820.64	820.82	820.96	821.15	821.45	821.98	822.10	822.81	822.97	823.79	823.92	824.87	825.08	826.05	826.40	827.77	829.14	830.63	830.52	831.81	831.89	832.94	833.26	834.18	834.63	835.48	836.01	836.96	837.38	838.34	838.75	840.43	840.12
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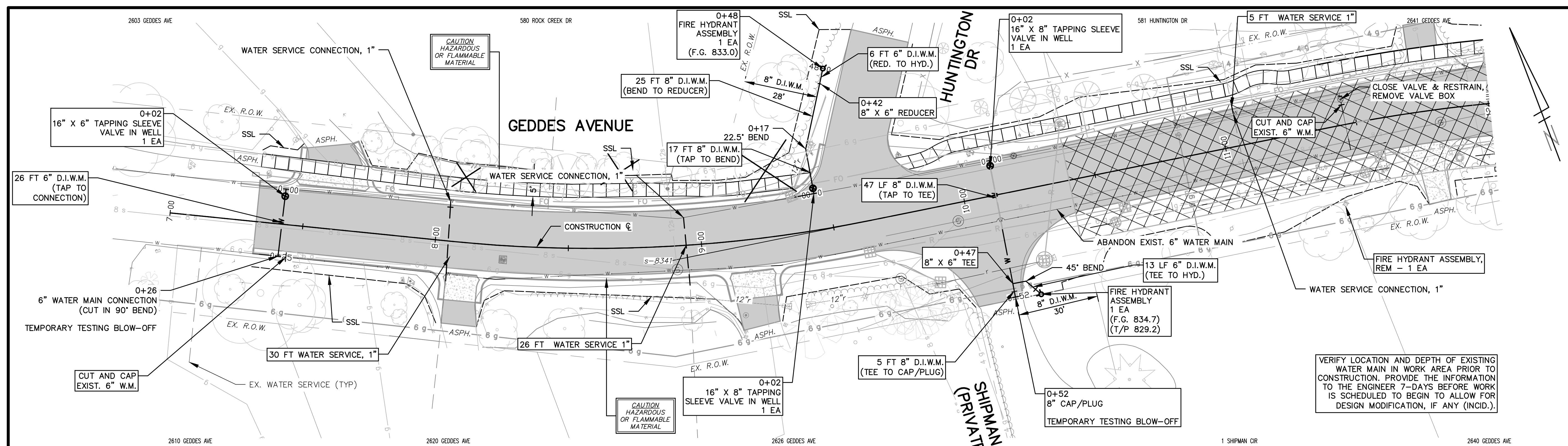
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
1	ISSUED FOR BIDS	APR. 22, 2015	ALP/ANN	CEH
2	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH
3	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/ANN	CEH
4	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/ANN	CEH

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
WATER MAIN PLAN AND PROFILE
STA. 7+00 TO STA. 12+00

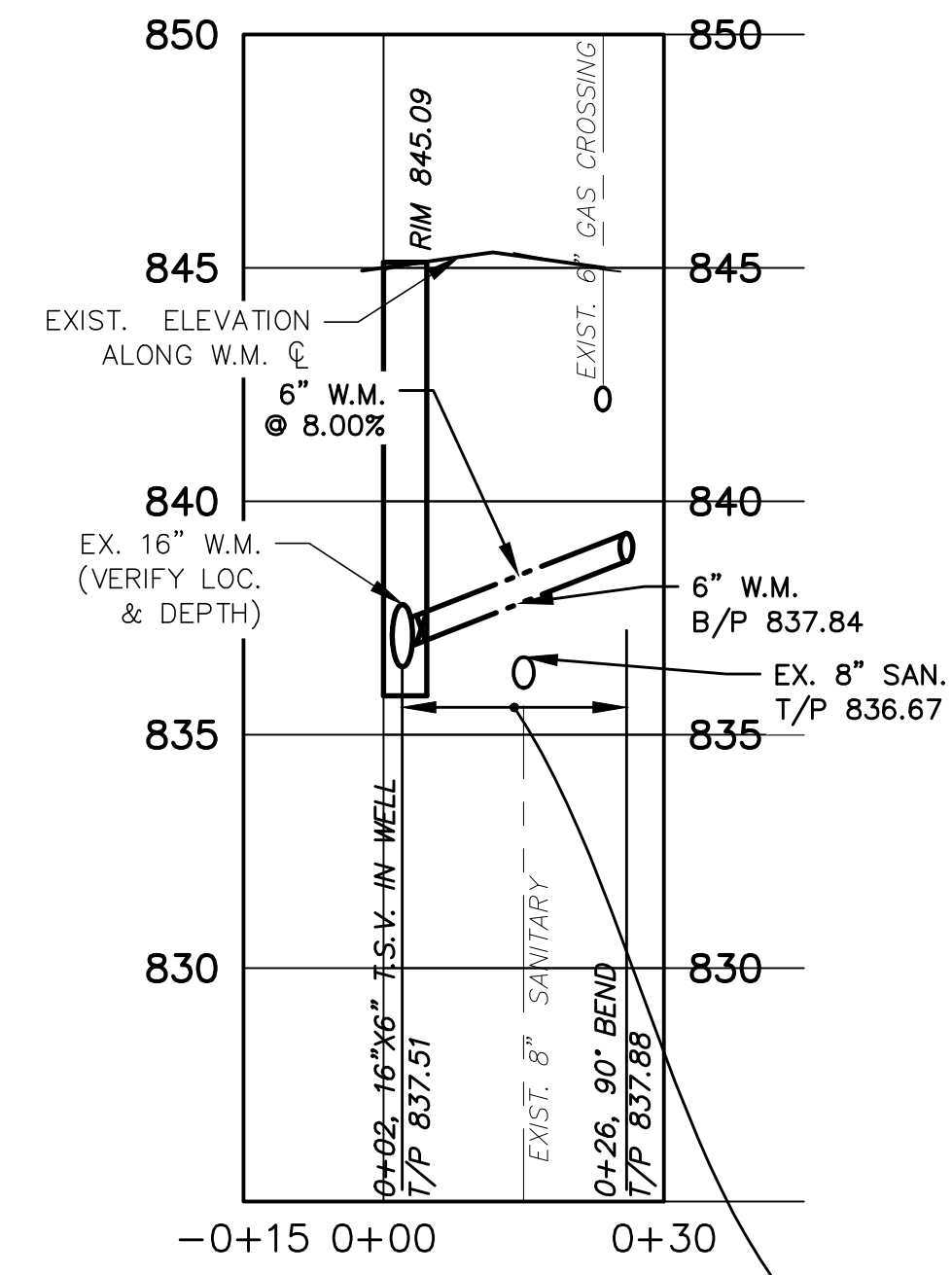
SCALE PLAN: 1"=20' PROFILE: 1"=4'
DRAWING No. WM-01
SHEET No.



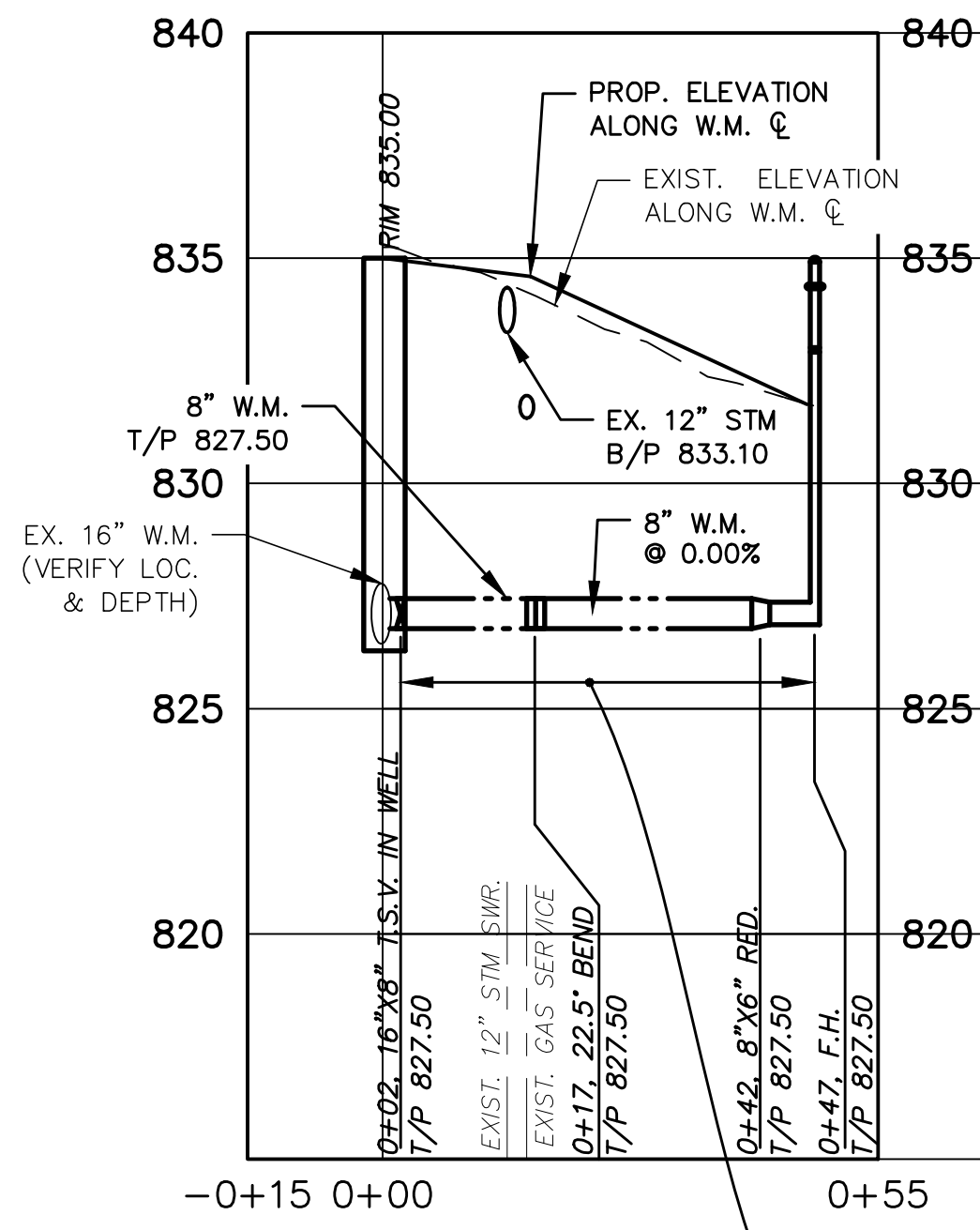
VERIFY LOCATION AND DEPTH OF EXISTING WATER MAIN IN WORK AREA PRIOR TO CONSTRUCTION. PROVIDE THE INFORMATION TO THE ENGINEER 7-DAYS BEFORE WORK IS SCHEDULED TO BEGIN TO ALLOW FOR DESIGN MODIFICATION, IF ANY (INCL.).

WATER MAIN CONSTRUCTION NOTES:

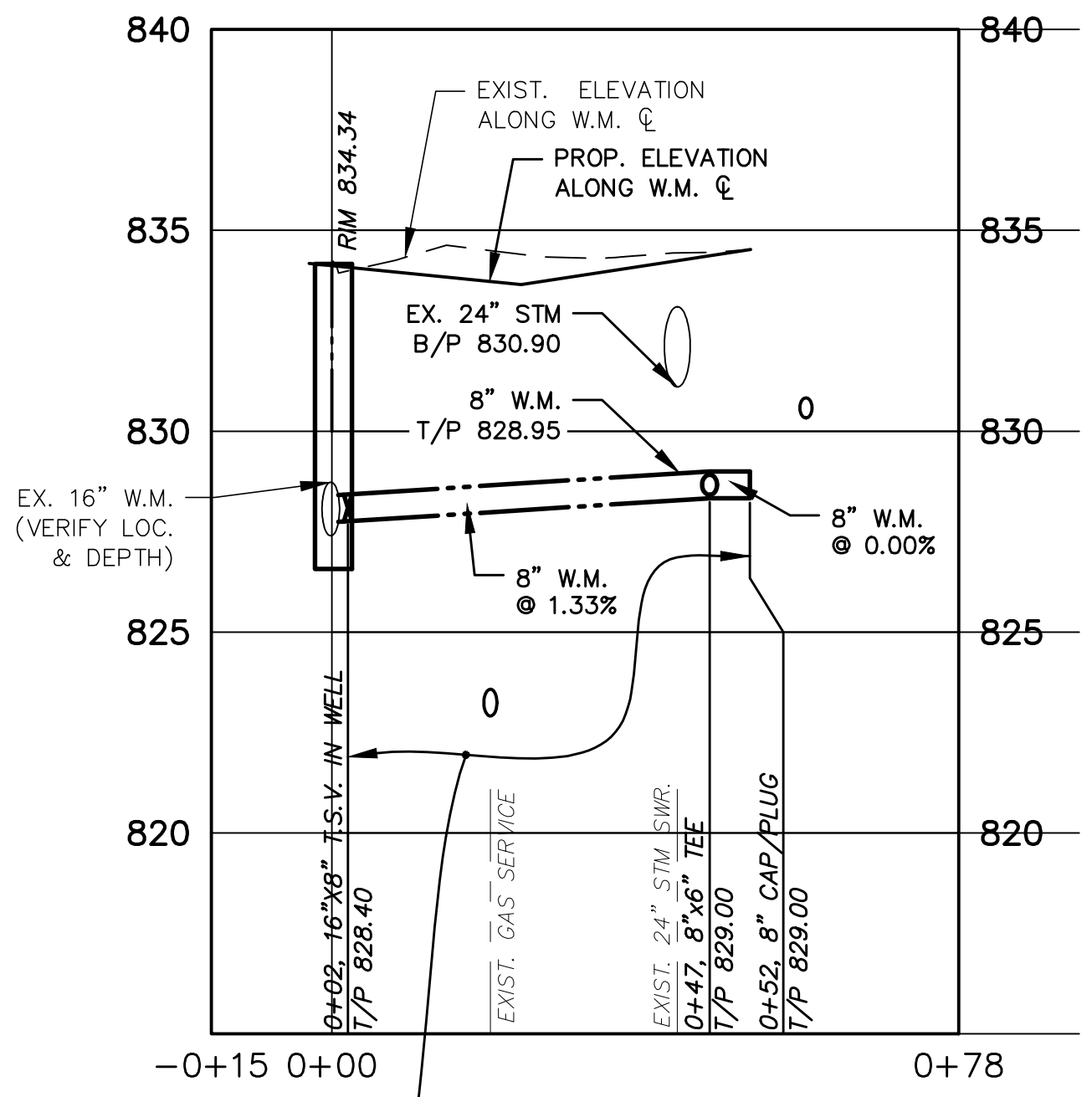
1. STATION REFERENCES FOR WATER MAIN FITTINGS AND APPURTENANCES ARE ALONG LENGTH OF PROPOSED WATER MAIN.
2. THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS WHICH ARE INCLUDED BY REFERENCE. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT. THE WORK SHALL BE PERFORMED IN COMPLETE CONFORMANCE WITH CURRENT PUBLIC SERVICE DEPARTMENT STANDARD SPECIFICATIONS AND DETAILS.
3. ALL WATER MAIN SHALL BE PRESSURE CLASS 350 DUCTILE IRON WATER MAIN, CEMENT-LINED (DOUBLE THICKNESS), WITH POLYWRAP.
4. RESTRAINED JOINT SYSTEMS FOR WATER MAIN SHALL BE UTILIZED WHERE INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER (TR-FLEX RESTRAINED JOINT PIPE BY U.S. PIPE, LOK-RING JOINT PIPE BY AMERICAN DUCTILE IRON PIPE, OR APPROVED EQUAL). RESTRAINED JOINT GASKET SYSTEMS MAY ALSO BE USED. (FIELD-LOK 350 BY U.S. PIPE, FAST-GRIP BY AMERICAN DUCTILE IRON PIPE, OR APPROVED EQUAL)
5. ALL WATER MAIN TO HAVE A TYPICAL 5.5 FEET OF COVER. MAINTAIN A MINIMUM OF 18" VERTICAL CLEARANCE FOR STORM AND SANITARY CROSSINGS AND A MINIMUM OF 12" VERTICAL CLEARANCE WITH ALL OTHER UTILITIES.
6. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL UTILIZE STANDARD PIPE DEFLECTIONS FOR FOLLOWING THE PROPOSED ALIGNMENT.
7. NEW FIRE HYDRANTS SHALL BE EJW 5BR-250 WITH 4" STORZ QUICK CONNECT. 12 INCH AND SMALLER VALVES SHALL BE EJW FLOWMASTER RESILIENT SEATED GATE VALVES.
8. FIRE HYDRANT ASSEMBLIES SHALL INCLUDE ALL NECESSARY THRUST BLOCKS, BENDS, PIPE AND FITTINGS, INCLUDING ADJUSTMENT OF THE STOP BOX. FIRE HYDRANT ASSEMBLY INCLUDES 6" STOP BOX LOCATED 3' FROM THE HYDRANT.
9. ALL HYDRANTS REMOVED BY THE CONTRACTOR ARE TO BE DELIVERED TO THE CITY OF ANN ARBOR AND WILL BECOME PROPERTY OF THE CITY OF ANN ARBOR.
10. ALL WATER MAIN TRENCH BACKFILL SHALL BE MDOT CLASS II MATERIAL (SEE UTILITY TRENCH TYPE I DETAIL).
11. CONNECTIONS TO THE EXISTING WATER MAIN SHALL NOT BE MADE UNTIL THE NEW MAIN HAS BEEN SUCCESSFULLY TESTED AND HAS PASSED BACTERIALOCIAL TESTING. FINAL CONNECTIONS SHALL BE COORDINATED WITH THE ENGINEER.
12. THE CONTRACTOR SHALL PERFORM ALL WATER SYSTEM SHUT DOWNS AFTER APPROPRIATE NOTIFICATION TO THOSE AFFECTED.



WATER MAIN LATERAL STUB FOR CROSSING AT CONNECTION STA. 7+43



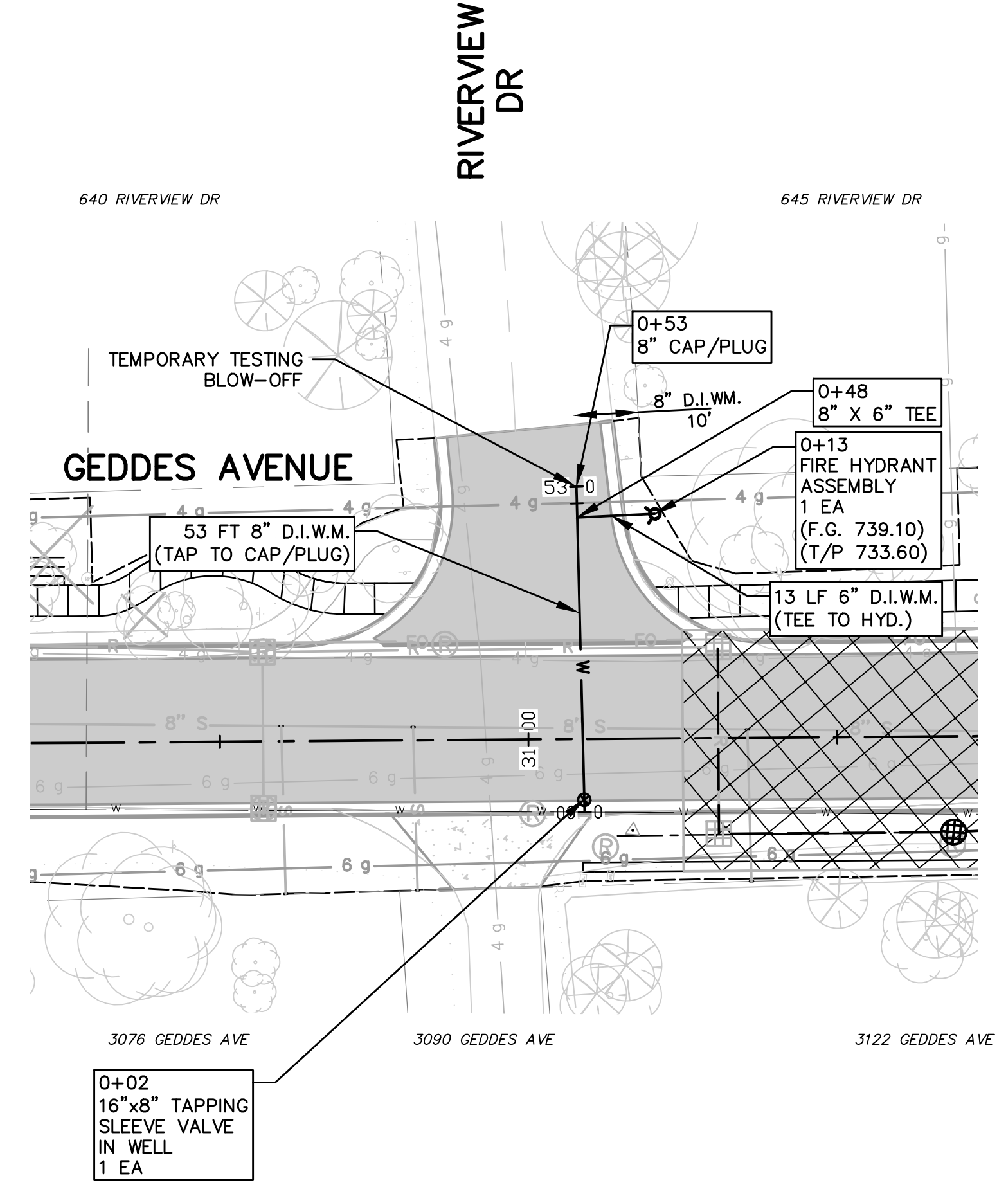
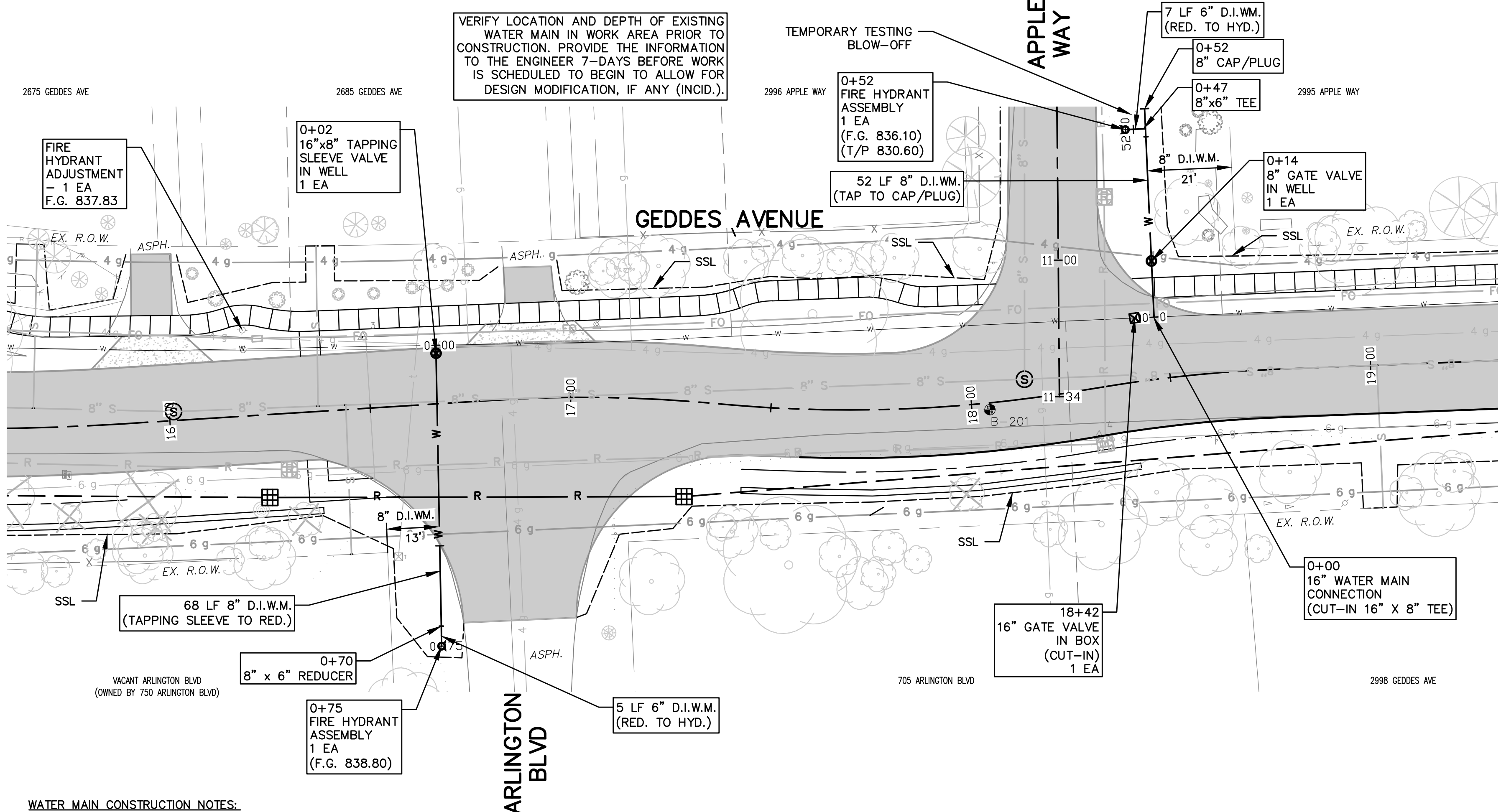
WATER MAIN LATERAL STUB TO HUNTINGTON DR. STA. 9+45



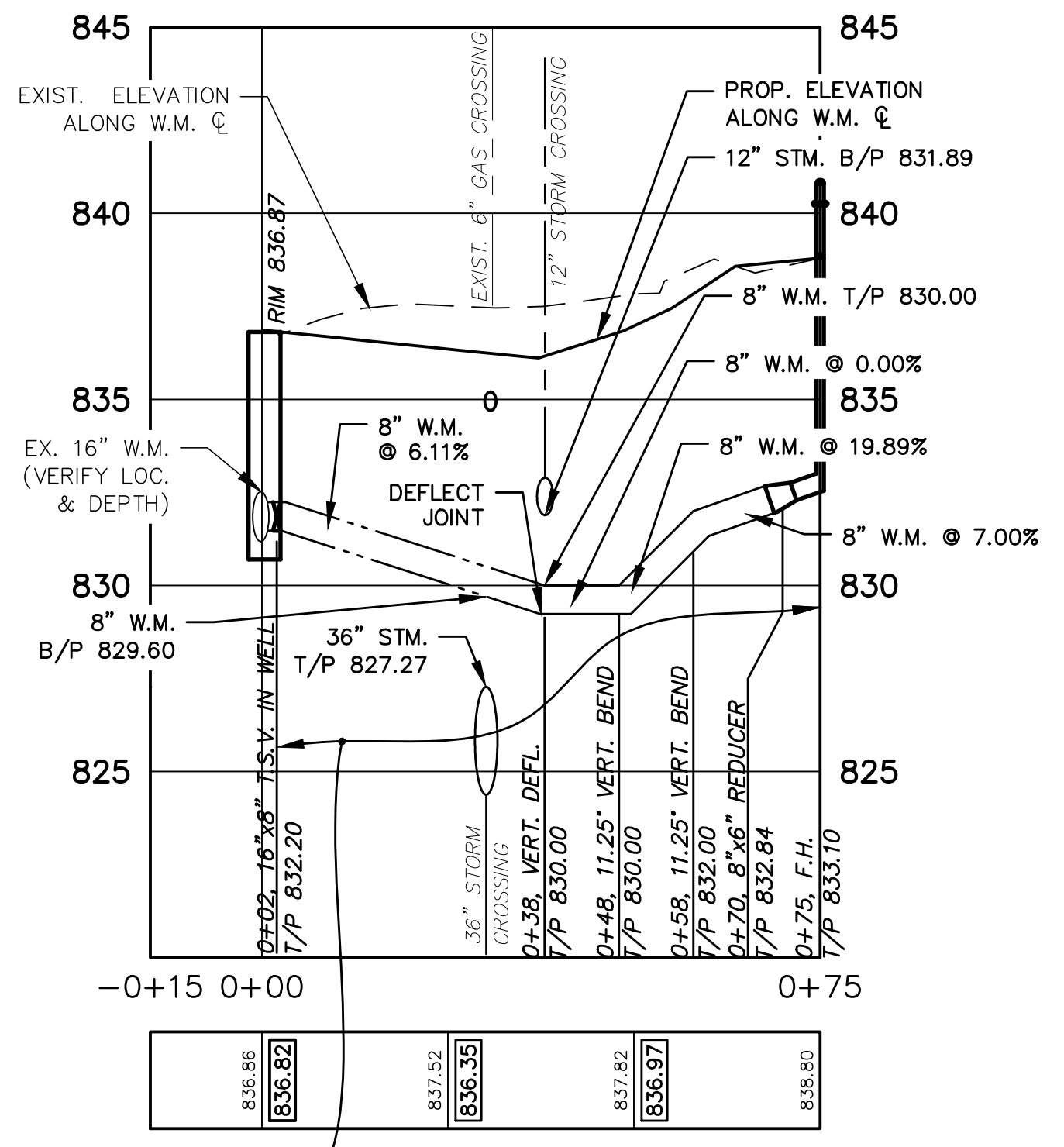
WATER MAIN LATERAL STUB TO SHIPMAN CIR. STA. 10+12

PRESSURE CL. 50 DUCTILE IRON WATER MAIN WITH RESTRAINED JOINTS (SEE SPECIFICATIONS), CEMENT-LINED (DOUBLE-THICKNESS), AND POLYWRAP. STANDARD SAND BEDDING AND COMPACTED SAND BACKFILL (TYPE I TRENCH DETAIL)

PRESSURE CL. 50 DUCTILE IRON WATER MAIN WITH RESTRAINED JOINTS (SEE SPECIFICATIONS), CEMENT-LINED (DOUBLE-THICKNESS), AND POLYWRAP. STANDARD SAND BEDDING AND COMPACTED SAND BACKFILL (TYPE I TRENCH DETAIL)

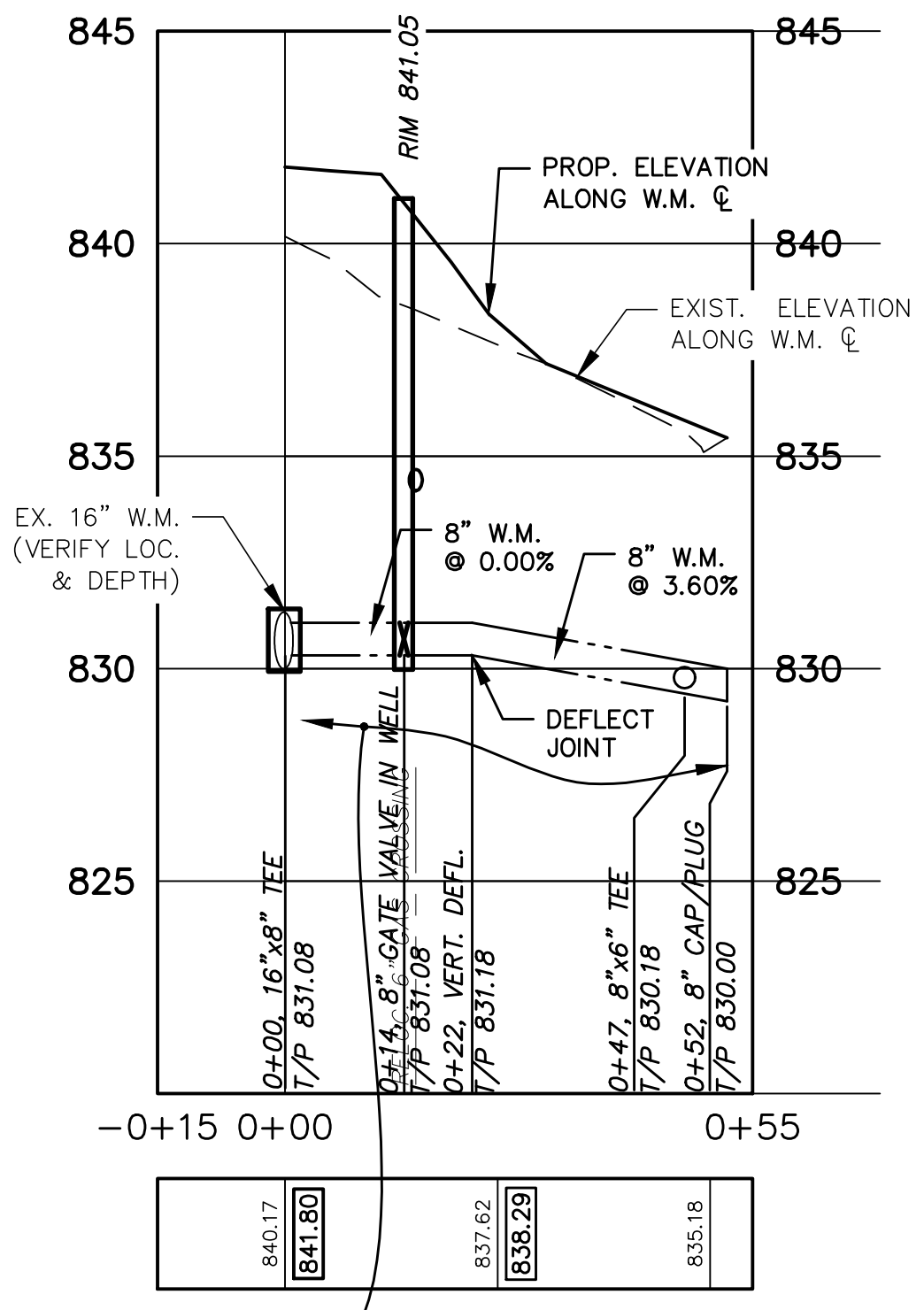


- WATER MAIN CONSTRUCTION NOTES:**
- STATION REFERENCES FOR WATER MAIN FITTINGS AND APPURTENANCES ARE ALONG LENGTH OF PROPOSED WATER MAIN.
 - THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS WHICH ARE INCLUDED BY REFERENCE. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT. THE WORK SHALL BE PERFORMED IN COMPLETE CONFORMANCE WITH CURRENT PUBLIC SERVICE DEPARTMENT STANDARD SPECIFICATIONS AND DETAILS.
 - ALL WATER MAIN SHALL BE PRESSURE CLASS 350 DUCTILE IRON WATER MAIN, CEMENT-LINED (DOUBLE THICKNESS), WITH POLYWRAP.
 - RESTRAINED JOINT SYSTEMS FOR WATER MAIN SHALL BE UTILIZED WHERE INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER (TR-FLEX RESTRAINED JOINT PIPE BY U.S. PIPE, LOK-RING JOINT PIPE BY AMERICAN DUCTILE IRON PIPE, OR APPROVED EQUAL). RESTRAINED JOINT GASKET SYSTEMS MAY ALSO BE USED. (FIELD-LOK 350 BY U.S. PIPE, FAST-GRIP BY AMERICAN DUCTILE IRON PIPE, OR APPROVED EQUAL)
 - ALL WATER MAIN TO HAVE A TYPICAL 5.5 FEET OF COVER. MAINTAIN A MINIMUM OF 18" VERTICAL CLEARANCE FOR STORM AND SANITARY CROSSINGS AND A MINIMUM OF 12" VERTICAL CLEARANCE WITH ALL OTHER UTILITIES.
 - UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL UTILIZE STANDARD PIPE DEFLECTIONS FOR FOLLOWING THE PROPOSED ALIGNMENT.
 - NEW FIRE HYDRANTS SHALL BE EJIW 5BR-250 WITH 4" STORZ QUICK CONNECT. 12 INCH AND SMALLER VALVES SHALL BE EJIW FLOWMASTER RESILIENT SEATED GATE VALVES.
 - FIRE HYDRANT ASSEMBLIES SHALL INCLUDE ALL NECESSARY THRUST BLOCKS, BENDS, PIPE AND FITTINGS, INCLUDING ADJUSTMENT OF THE STOP BOX. FIRE HYDRANT ASSEMBLY INCLUDES 6" STOP BOX LOCATED 3' FROM THE HYDRANT.
 - ALL HYDRANTS REMOVED BY THE CONTRACTOR ARE TO BE DELIVERED TO THE CITY OF ANN ARBOR AND WILL BECOME PROPERTY OF THE CITY OF ANN ARBOR.
 - ALL WATER MAIN TRENCH BACKFILL SHALL BE MDOT CLASS II MATERIAL (SEE UTILITY TRENCH TYPE I DETAIL).
 - CONNECTIONS TO THE EXISTING WATER MAIN SHALL NOT BE MADE UNTIL THE NEW MAIN HAS BEEN SUCCESSFULLY TESTED AND HAS PASSED BACTERIOLOGICAL TESTING. FINAL CONNECTIONS SHALL BE COORDINATED WITH THE ENGINEER.
 - THE CONTRACTOR SHALL PERFORM ALL WATER SYSTEM SHUT DOWNS AFTER APPROPRIATE NOTIFICATION TO THOSE AFFECTED.



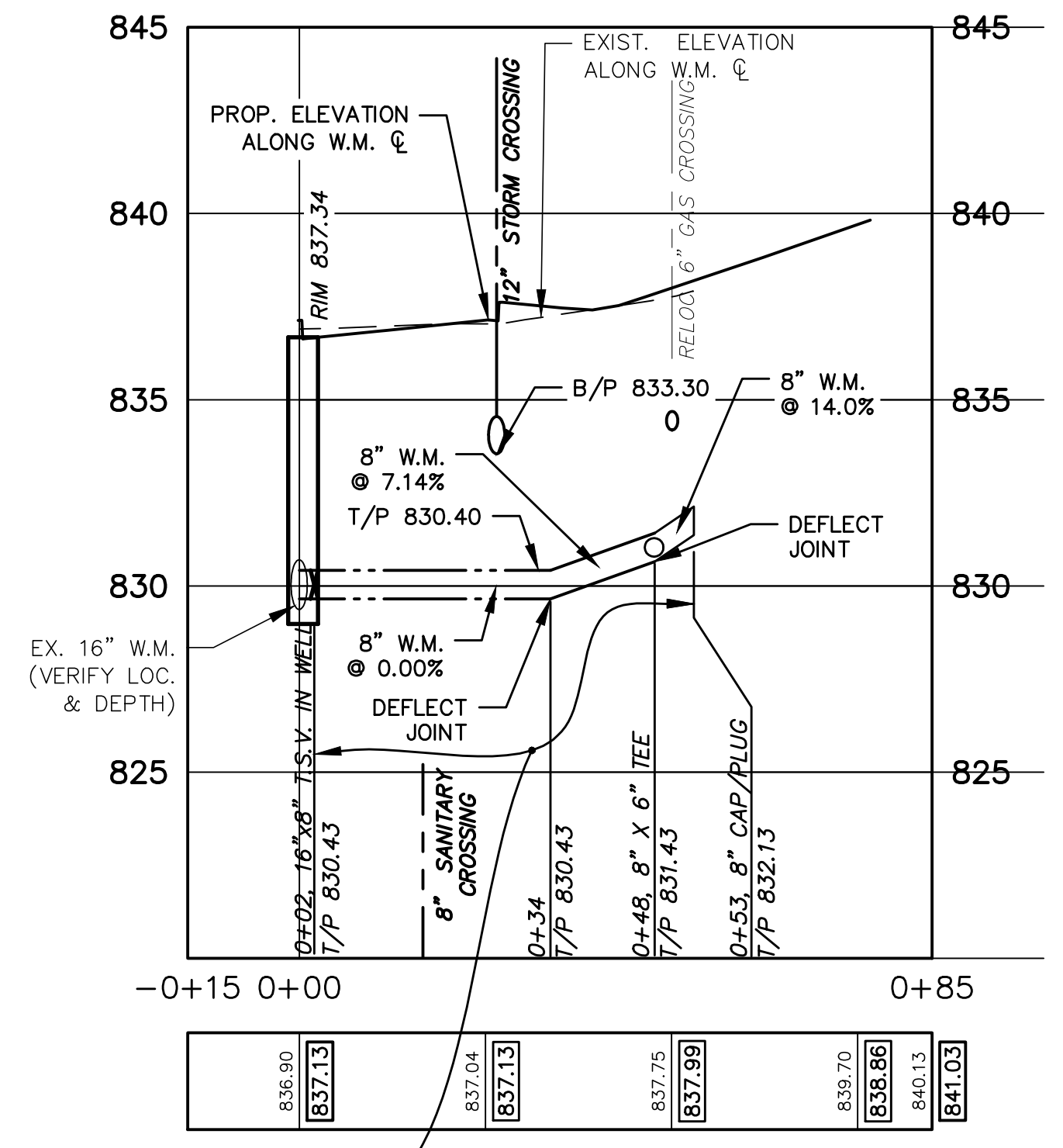
CL. 50 DUCTILE IRON WATER MAIN WITH RESTRAINED JOINTS (SEE SPECIFICATIONS), CEMENT-LINED (DOUBLE-THICKNESS), AND POLYWRAP. STANDARD SAND BEDDING AND COMPACTED SAND BACKFILL (TYPE I TRENCH DETAIL)

WATER MAIN STUB TO ARLINGTON BLVD. STA. 16+67



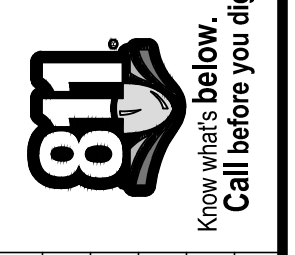
CL. 50 DUCTILE IRON WATER MAIN WITH RESTRAINED JOINTS (SEE SPECIFICATIONS), CEMENT-LINED (DOUBLE-THICKNESS), AND POLYWRAP. STANDARD SAND BEDDING AND COMPACTED SAND BACKFILL (TYPE I TRENCH DETAIL)

WATER MAIN STUB TO APPLE WAY STA. 18+48



CL. 50 DUCTILE IRON WATER MAIN WITH RESTRAINED JOINTS (SEE SPECIFICATIONS), CEMENT-LINED (DOUBLE-THICKNESS), AND POLYWRAP. STANDARD SAND BEDDING AND COMPACTED SAND BACKFILL (TYPE I TRENCH DETAIL)

WATER MAIN STUB TO RIVERVIEW DR. STA. 31+09



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
1	ISSUED FOR BIDS	APR. 22, 2015	ALP/ANN	CEH
2	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH
3	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/ANN	CEH
4	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/ANN	CEH

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
www.a2gov.org



PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
WATER MAIN PLAN AND PROFILE
STUBS TO ARLINGTON BLVD., APPLE WAY & RIVERVIEW DR.

SCALE PLAN: 1"=20' PROFILE: 1"=4'
DRAWING No. WM-02
SHEET No.



APR. 22, 2015	ALP/AMN	CEH	CHECKED
MAR. 26, 2015	ALP/AMN	CEH	
MAR. 13, 2015	ALP/AMN	CEH	
JAN. 29, 2015	ALP/AMN	CEH	
	ALP/AMN	CEH	

ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	DATE

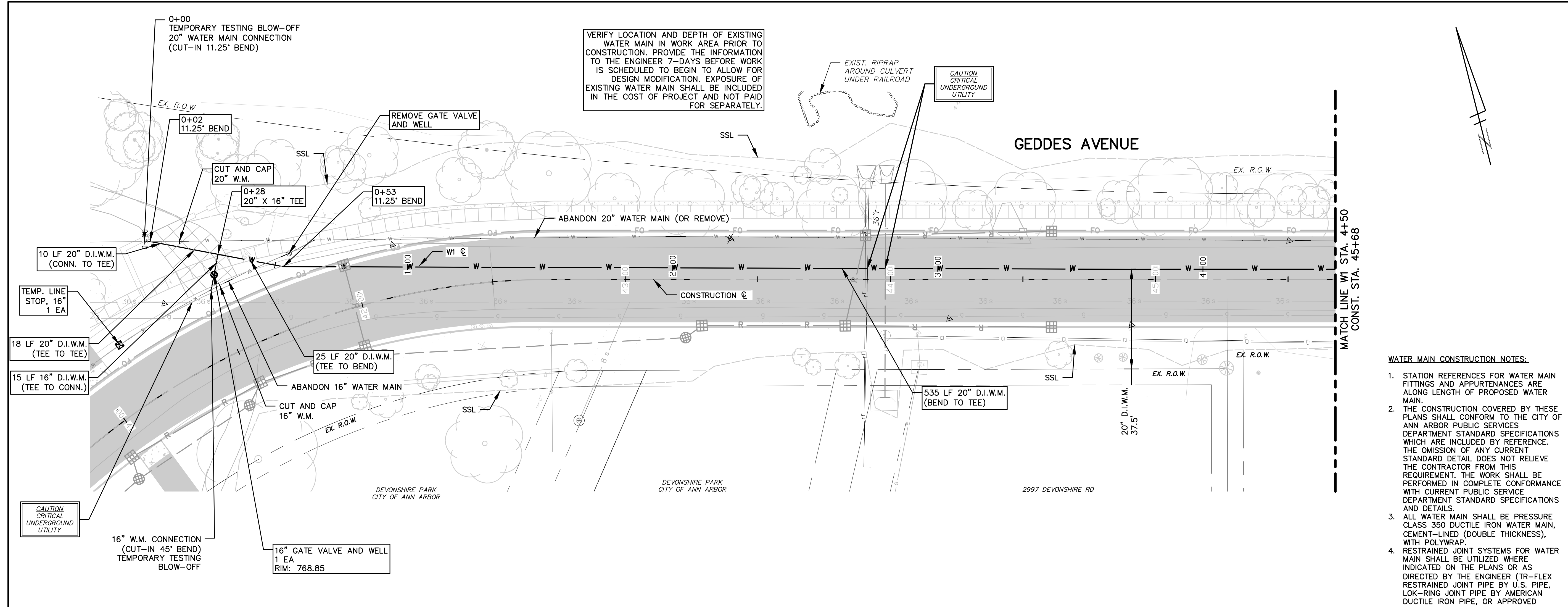
REV.	DESCRIPTION
	PRELIMINARY PLAN SUBMITTAL
	FINAL REVIEW SUBMITTAL
	FINAL PLAN SUBMITTAL

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
WATER MAIN RELOCATION PLAN AND PROFILE
W1 STA. 0+00 TO 4+50

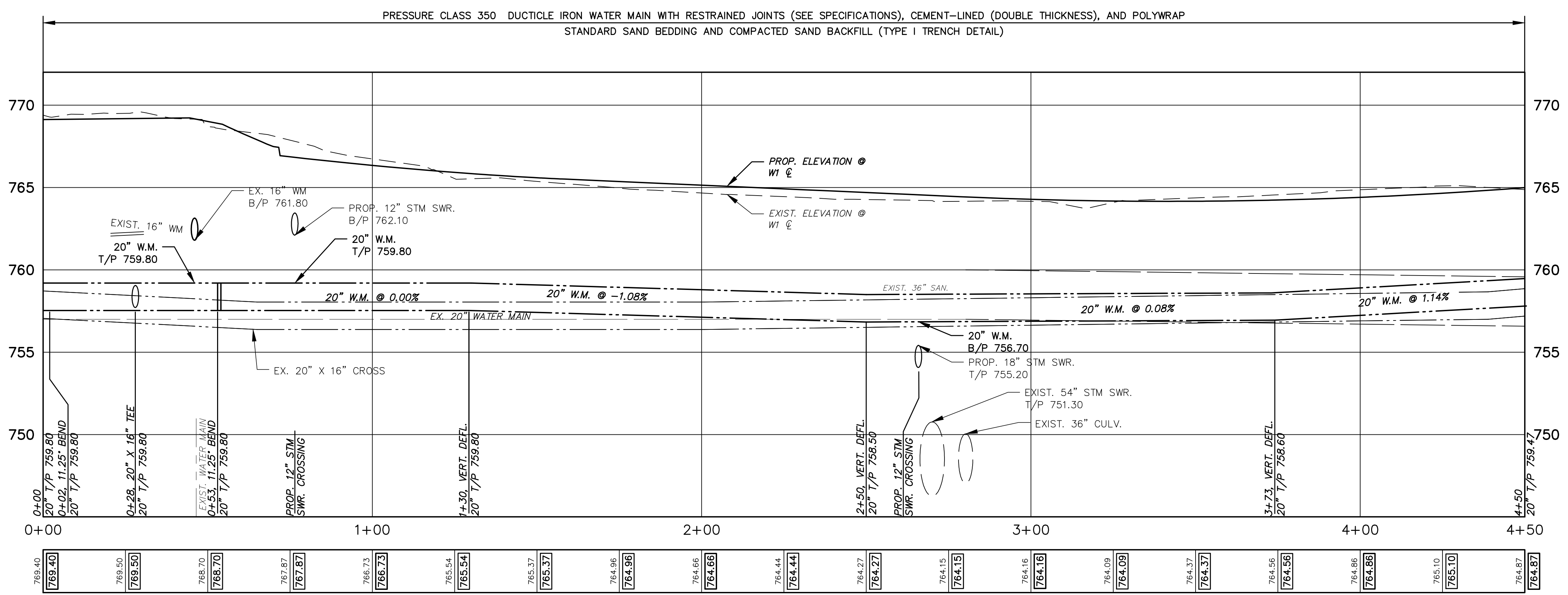
SCALE PLAN: 1"=20'
PROFILE: 1"=4'
DRAWING No. WM-03



VERIFY LOCATION AND DEPTH OF EXISTING WATER MAIN IN WORK AREA PRIOR TO CONSTRUCTION. PROVIDE THE INFORMATION TO THE ENGINEER 7-DAYS BEFORE WORK IS SCHEDULED TO BEGIN TO ALLOW FOR DESIGN MODIFICATION. EXPOSURE OF EXISTING WATER MAIN SHALL BE INCLUDED IN THE COST OF PROJECT AND NOT PAID FOR SEPARATELY.

WATER MAIN CONSTRUCTION NOTES:

- STATION REFERENCES FOR WATER MAIN FITTINGS AND APPURTENANCES ARE ALONG LENGTH OF PROPOSED WATER MAIN.
- THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS WHICH ARE INCLUDED BY REFERENCE. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT. THE WORK SHALL BE PERFORMED IN COMPLETE CONFORMANCE WITH CURRENT PUBLIC SERVICE DEPARTMENT STANDARD SPECIFICATIONS AND DETAILS.
- ALL WATER MAIN SHALL BE PRESSURE CLASS 350 DUCTILE IRON WATER MAIN, CEMENT-LINED (DOUBLE THICKNESS), WITH POLYWRAP.
- RESTRAINED JOINT SYSTEMS FOR WATER MAIN SHALL BE UTILIZED WHERE INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER (TR-FLEX RESTRAINED JOINT PIPE BY U.S. PIPE, LOK-RING JOINT PIPE BY AMERICAN DUCTILE IRON PIPE, OR APPROVED EQUAL). RESTRAINED JOINT GASKET SYSTEMS MAY ALSO BE USED (FIELD-LOK 350 BY U.S. PIPE, FAST-GRIP BY AMERICAN DUCTILE IRON PIPE, OR APPROVED EQUAL).
- ALL WATER MAIN TO HAVE A TYPICAL 5.5 FEET OF COVER. MAINTAIN A MINIMUM OF 18" VERTICAL CLEARANCE FOR STORM AND SANITARY CROSSINGS AND A MINIMUM OF 12" VERTICAL CLEARANCE WITH ALL OTHER UTILITIES.
- UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL UTILIZE STANDARD PIPE DEFLECTIONS FOR FOLLOWING THE PROPOSED ALIGNMENT.
- NEW FIRE HYDRANTS SHALL BE EJIW 5BR-250 WITH 4" STORZ QUICK CONNECT. 12 INCH AND SMALLER VALVES SHALL BE EJIW FLOWMASTER RESILIENT SEATED GATE VALVES.
- FIRE HYDRANT ASSEMBLIES SHALL INCLUDE ALL NECESSARY THRUST BLOCKS, BENDS, PIPE AND FITTINGS, INCLUDING ADJUSTMENT OF THE STOP BOX. FIRE HYDRANT ASSEMBLY INCLUDES 6" STOP BOX LOCATED 3' FROM THE HYDRANT.
- ALL HYDRANTS REMOVED BY THE CONTRACTOR ARE TO BE DELIVERED TO THE CITY OF ANN ARBOR AND WILL BECOME PROPERTY OF THE CITY OF ANN ARBOR.
- ALL WATER MAIN TRENCH BACKFILL SHALL BE MDOT CLASS II MATERIAL (SEE UTILITY TRENCH TYPE I DETAIL).
- CONNECTIONS TO THE EXISTING WATER MAIN SHALL NOT BE MADE UNTIL THE NEW MAIN HAS BEEN SUCCESSFULLY TESTED AND HAS PASSED BACTERIAL/SOCIAL TESTING. FINAL CONNECTIONS SHALL BE COORDINATED WITH THE ENGINEER.
- THE CONTRACTOR SHALL PERFORM ALL WATER SYSTEM SHUT DOWNS AFTER APPROPRIATE NOTIFICATION TO THOSE AFFECTED.





CEH	CEH	CEH	CEH	CEH	CEH
ALP/AMN	ALP/AMN	ALP/AMN	ALP/AMN	ALP/AMN	ALP/AMN
APR. 22, 2015	MAR. 26, 2015	MAR. 13, 2015	JAN. 29, 2015	DATE	CHECKED

ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	FINAL REVIEW SUBMITTAL	PRELIMINARY PLAN SUBMITTAL	REV.	DESCRIPTION

CITY OF ANN ARBOR PUBLIC SERVICES 301 EAST HURON STREET ANN ARBOR, MI 48107-8647 www.ci.ann-arbor.mi.us					
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR					
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SCALE PLAN: 1"=20'	PROFILE: 1"=4'				
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DRAWING No. WM-04					
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SHEET No.					
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75 OF 187					
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GEDDES AVENUE IMPROVEMENTS					
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WATER MAIN RELOCATION PLAN AND PROFILE					
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WI STA. 4+50 TO WI STA. 9+12					
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR					
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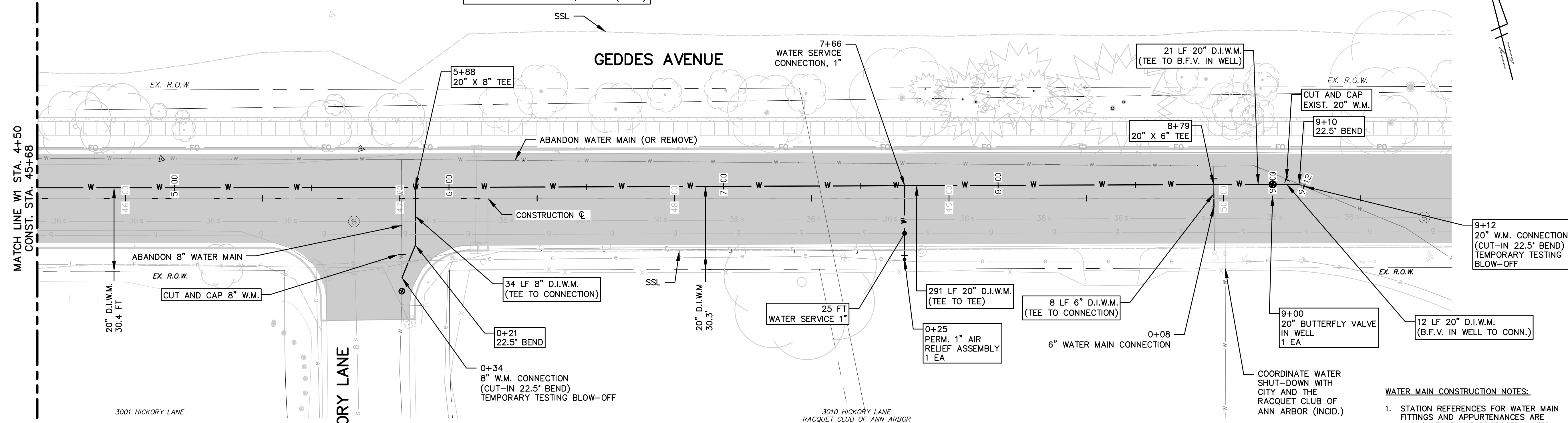
SCALE PLAN: 1"=20'	PROFILE: 1"=4'				
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DRAWING No. WM-04					
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SHEET No.					
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75 OF 187					
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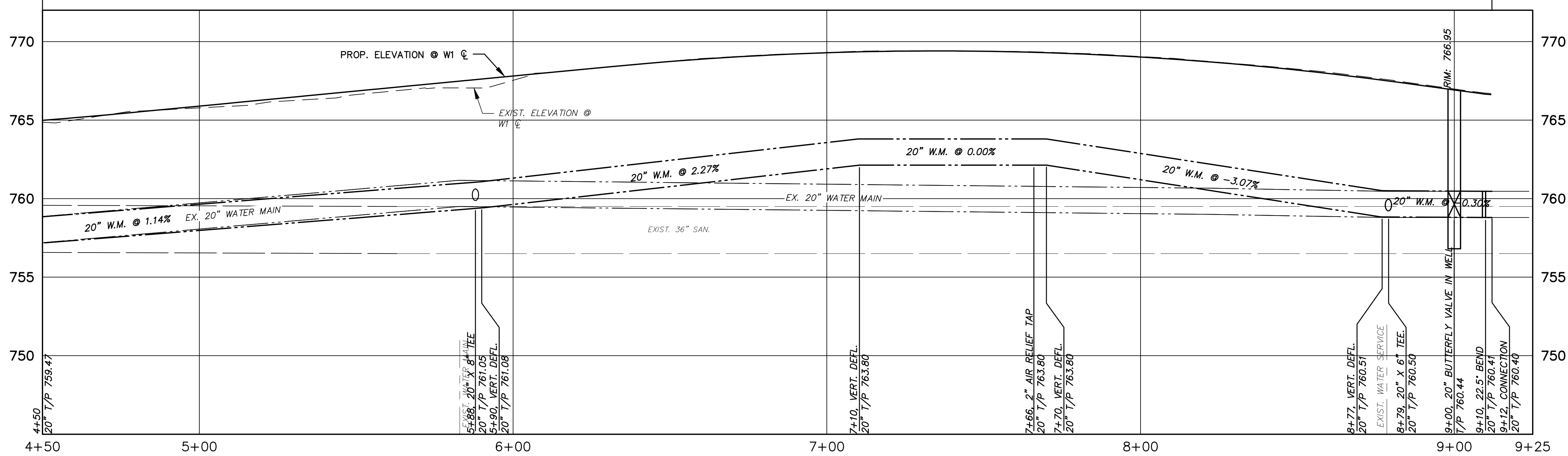
VERIFY LOCATION AND DEPTH OF EXISTING WATER MAIN IN WORK AREA PRIOR TO CONSTRUCTION. PROVIDE THE INFORMATION TO THE ENGINEER 7-DAYS BEFORE WORK IS SCHEDULED TO BEGIN TO ALLOW FOR DESIGN MODIFICATION, IF ANY (INCL.).



WATER MAIN CONSTRUCTION NOTES:

1. STATION REFERENCES FOR WATER MAIN FITTINGS AND APPURTENANCES ARE ALONG LENGTH OF PROPOSED WATER MAIN.
2. THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS WHICH ARE INCLUDED BY REFERENCE. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT. THE WORK SHALL BE PERFORMED IN COMPLETE CONFORMANCE WITH CURRENT PUBLIC SERVICE DEPARTMENT STANDARD SPECIFICATIONS AND DETAILS.
3. ALL WATER MAIN SHALL BE PRESSURE CLASS 350 DUCTILE IRON WATER MAIN, CEMENT-LINED (DOUBLE THICKNESS), WITH POLYWRAP.
4. RESTRAINED JOINT SYSTEMS FOR WATER MAIN SHALL BE UTILIZED WHERE INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER (TR-FLEX RESTRAINED JOINT PIPE BY U.S. PIPE, LOK-RING JOINT PIPE BY AMERICAN DUCTILE IRON PIPE, OR APPROVED EQUAL). RESTRAINED JOINT GASKET SYSTEMS MAY ALSO BE USED. (FIELD-LOK 350 BY U.S. PIPE, FAST-GRIP BY AMERICAN DUCTILE IRON PIPE, OR APPROVED EQUAL)
5. ALL WATER MAIN TO HAVE A TYPICAL 5.5 FEET OF COVER. MAINTAIN A MINIMUM OF 18" VERTICAL CLEARANCE FOR STORM AND SANITARY CROSSINGS AND A MINIMUM OF 12" VERTICAL CLEARANCE WITH ALL OTHER UTILITIES. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL UTILIZE STANDARD PIPE DEFLECTIONS FOR FOLLOWING THE PROPOSED ALIGNMENT.
6. NEW FIRE HYDRANTS SHALL BE EJIW 5BR-250 WITH 4" STORZ QUICK CONNECT. 12 INCH AND SMALLER VALVES SHALL BE EJIW FLOWMASTER RESILIENT SEATED GATE VALVES.
7. FIRE HYDRANT ASSEMBLIES SHALL INCLUDE ALL NECESSARY THRUST BLOCKS, BENDS, PIPE AND FITTINGS, INCLUDING ADJUSTMENT OF THE STOP BOX. FIRE HYDRANT ASSEMBLY INCLUDES 6" STOP BOX LOCATED 3' FROM THE HYDRANT.
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9. ALL WATER MAIN TRENCH BACKFILL SHALL BE MDOT CLASS II MATERIAL (SEE UTILITY TRENCH TYPE I DETAIL).
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11. THE CONTRACTOR SHALL PERFORM ALL WATER SYSTEM SHUT DOWNS AFTER APPROPRIATE NOTIFICATION TO THOSE AFFECTED.

PRESSURE CLASS 350 DUCTILE IRON WATER MAIN WITH RESTRAINED JOINTS (SEE SPECIFICATIONS), CEMENT-LINED (DOUBLE THICKNESS), AND POLYWRAP
STANDARD SAND BEDDING AND COMPACTED SAND BACKFILL (TYPE I TRENCH DETAIL)

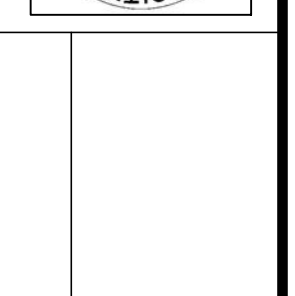


764.87	764.87	765.47	765.47	765.78	765.78	766.19	766.19	766.62	766.62	767.05	767.05	767.54	767.54	768.28	768.28	768.75	768.75	769.09	769.09	769.31	769.31	769.41	769.41	769.39	769.39	769.29	769.29	769.05	769.05	768.69	768.69	768.24	768.24	767.67	767.67	766.98	766.98
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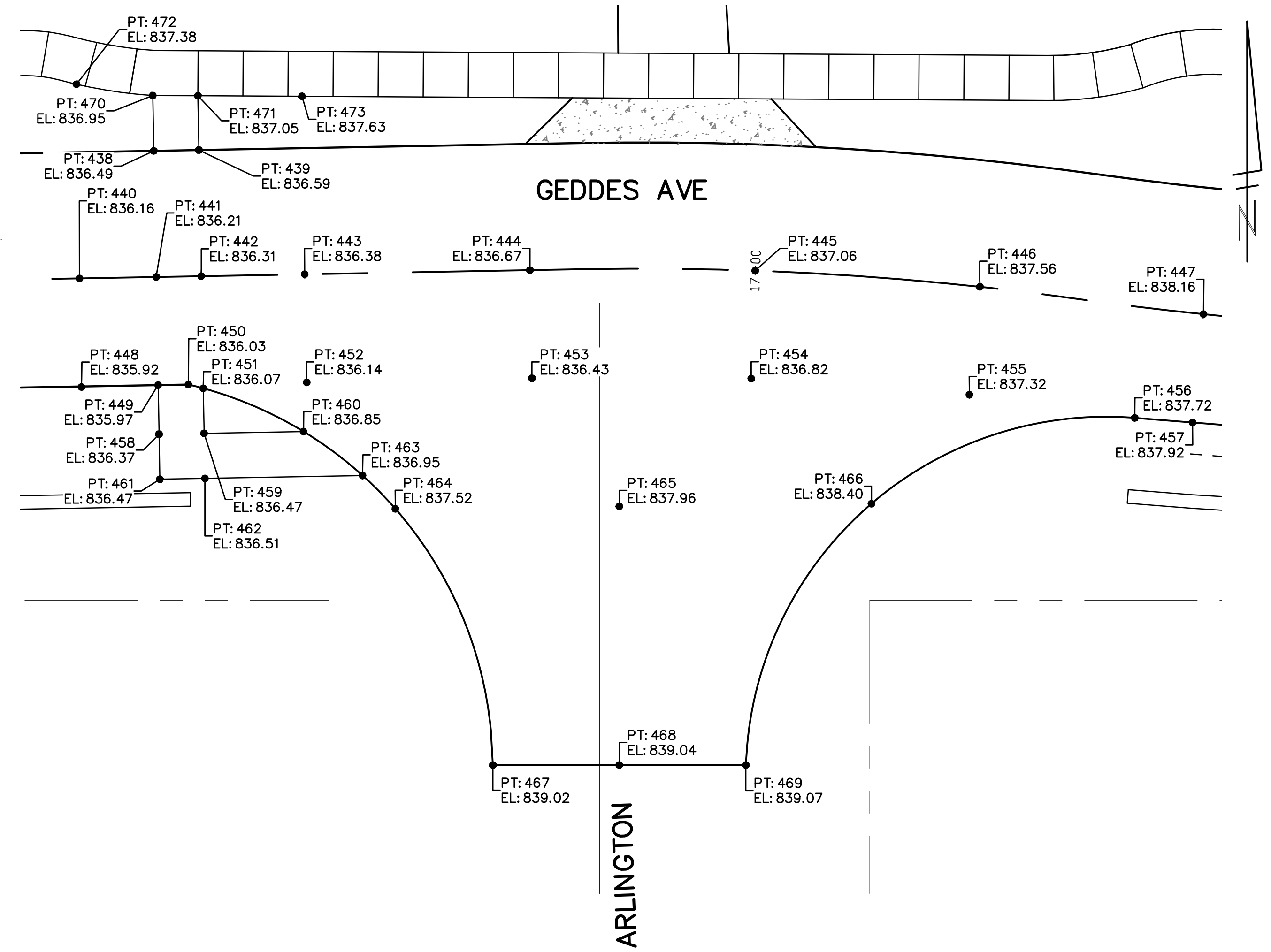
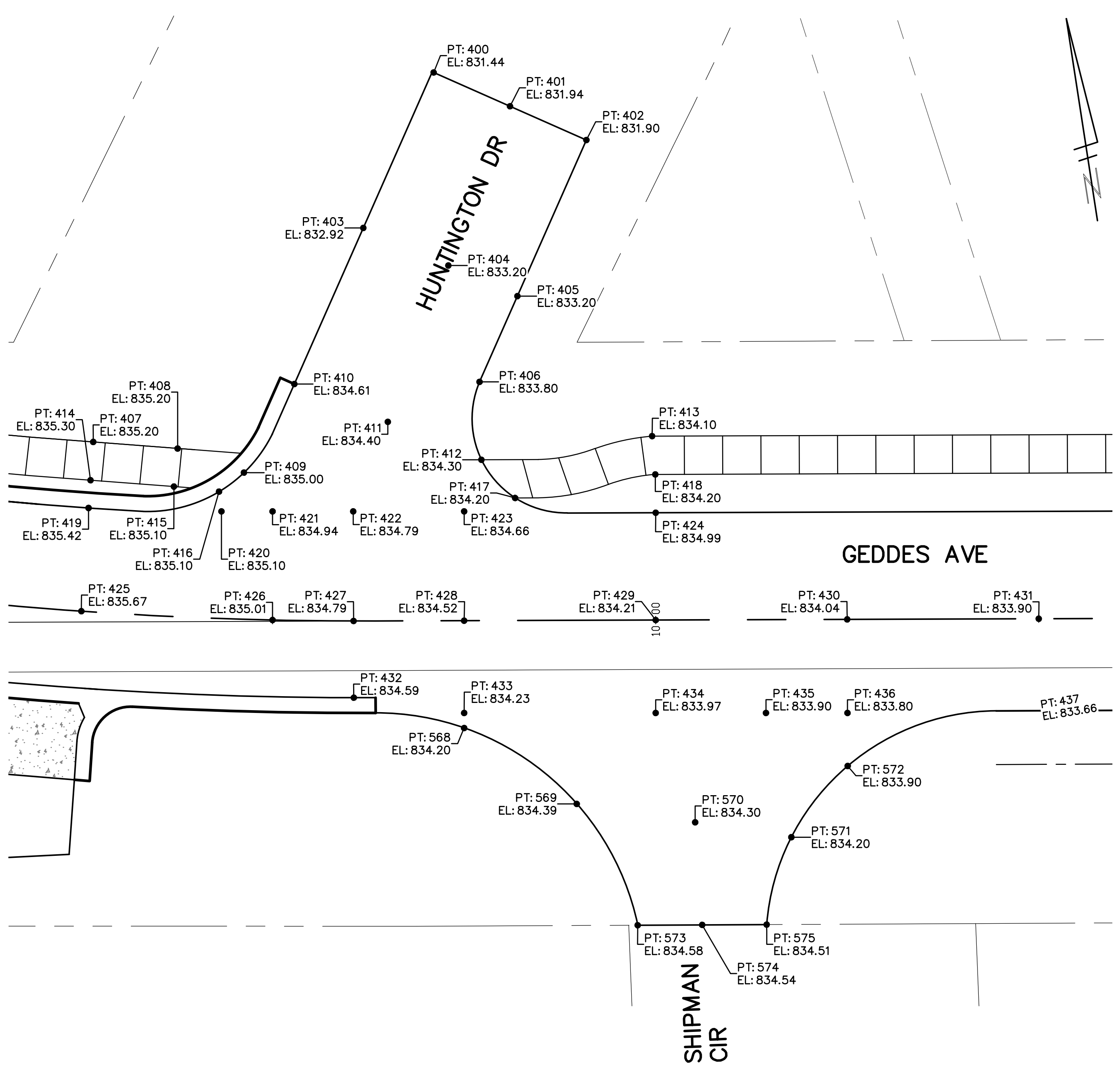
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
APR. 22, 2015	ISSUED FOR BIDS		ALP/M/N	CEH
MAR. 26, 2015	FINAL PLAN SUBMITTAL		ALP/M/N	CEH
MAR. 13, 2015	FINAL REVIEW SUBMITTAL		ALP/M/N	CEH
JAN. 29, 2015	PRELIMINARY PLAN SUBMITTAL		ALP/M/N	CEH

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
www.a2gov.org



PROJECT MANAGEMENT - CITY OF ANN ARBOR
GEDES AVENUE IMPROVEMENTS
GEDES AVENUE INTERSECTION AND
PEDESTRIAN CROSSING GRADES

SCALE PLAN: 1"=10'
DRAWING No. DGRD-01
SHEET No.



PT.	COORDINATE
400	E: 13300201.7578 N: 282500.9521
401	E: 13300210.9059 N: 282495.0274
402	E: 13300220.0541 N: 282489.1027
403	E: 13300189.4836 N: 282482.3820
404	E: 13300199.6732 N: 282475.7790
405	E: 13300207.9461 N: 282470.4180
406	E: 13300201.2931 N: 282460.1513
407	E: 13300150.2626 N: 282460.3823
408	E: 13300161.0043 N: 282457.7910
409	E: 13300169.0532 N: 282453.3252

PT.	COORDINATE
410	E: 13300177.3757 N: 282463.6974
411	E: 13300188.6486 N: 282456.8873
412	E: 13300199.9216 N: 282450.0773
413	E: 13300222.4173 N: 282449.5999
414	E: 13300149.1284 N: 282455.5125
415	E: 13300159.7406 N: 282452.9735
416	E: 13300165.4531 N: 282451.3860
417	E: 13300203.4808 N: 282444.4587
418	E: 13300222.0333 N: 282444.5990
419	E: 13300148.3037 N: 282451.9719

PT.	COORDINATE
420	E: 13300165.3533 N: 282448.7888
421	E: 13300171.9473 N: 282421.9610
422	E: 13300182.3354 N: 282446.0689
423	E: 13300196.6342 N: 282443.7787
424	E: 13300221.2920 N: 282439.6542
425	E: 13300145.2414 N: 282438.8238
426	E: 13300169.7060 N: 282433.7389
427	E: 13300180.1221 N: 282431.9410
428	E: 13300194.3792 N: 282429.6996

PT.	COORDINATE
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430	E: 13300243.7767 N: 282421.9610
431	E: 13300268.4754 N: 282418.0916
432	E: 13300178.5740 N: 282422.0592
433	E: 13300192.4751 N: 282417.8111
434	E: 13300217.1603 N: 282413.8574
435	E: 13300231.3749 N: 282411.5807
436	E: 13300241.8867 N: 282406.2362
437	E: 13300266.6181 N: 282406.2362
438	E: 13300266.6181 N: 282406.2362
439	E: 13300266.6181 N: 282406.2362
440	E: 13300266.6181 N: 282406.2362
441	E: 13300266.6181 N: 282406.2362
442	E: 13300266.6181 N: 282406.2362
443	E: 13300266.6181 N: 282406.2362
444	E: 13300266.6181 N: 282406.2362
445	E: 13300266.6181 N: 282406.2362
446	E: 13300266.6181 N: 282406.2362
447	E: 13300266.6181 N: 282406.2362

PT.	COORDINATE
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571	E: 13300232.0864 N: 282395.0534
572	E: 13300240.8161 N: 282403.0630
573	E: 13300210.4660 N: 282386.8872
574	E: 13300218.7840 N: 282385.5964
575	E: 13300227.1020 N: 282384.3056

PT.	COORDINATE
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439	E: 13300850.3162 N: 282350.2183
440	E: 13300837.6855 N: 282350.2183
441	E: 13300846.1836 N: 282350.7401
442	E: 13300851.1742 N: 282351.0465
443	E: 13300862.6385 N: 282351.7504
444	E: 13300887.5915 N: 282353.2824
445	E: 13300912.5637 N: 282354.2995
446	E: 13300937.5473 N: 282353.5834
447	E: 13300962.4637 N: 282351.6138

PT.	COORDINATE
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450	E: 13300850.2731 N: 282338.9685
451	E: 13300851.9371 N: 282338.6211
452	E: 13300863.3739 N: 282339.7729
453	E: 13300888.3269 N: 282341.3050
454	E: 13300912.6420 N: 282342.3083
455	E: 13300936.9004 N: 282341.5631
456	E: 13300955.3458 N: 282339.7798
457	E: 13300961.7746 N: 282339.5474

PT.	COORDINATE
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459	E: 13300852.2435 N: 282333.6305
460	E: 13300863.2504 N: 282334.3063
461	E: 13300847.5593 N: 282328.3334
462	E: 13300852.5499 N: 282328.6399
463	E: 13300870.0087 N: 282329.7118
464	E: 13300873.8047 N: 282326.1743
465	E: 13300898.6212 N: 282327.5081
466	E: 13300926.5671 N: 282329.0101
467	E: 13300885.8381 N: 282298.2246

PT.	COORDINATE
468	E: 13300899.8546 N: 282298.8274
469	E: 13300913.8712 N: 282299.4302
470	E: 13300844.9491 N: 282370.8464
471	E: 13300849.9470 N: 282371.0331
472	E: 13300836.4227 N: 282371.7358
473	E: 13300861.4865 N: 282371.4643

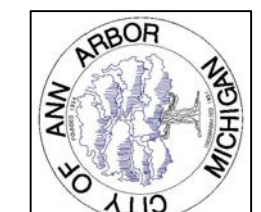


Know what's below. Call before you dig.

APR. 22, 2015	ALP/ANN	CEH	CHECKED
MAR. 26, 2015	ALP/ANN	CEH	
MAR. 13, 2015	ALP/ANN	CEH	
JAN. 29, 2015	ALP/ANN	CEH	
DATE	DRWN		

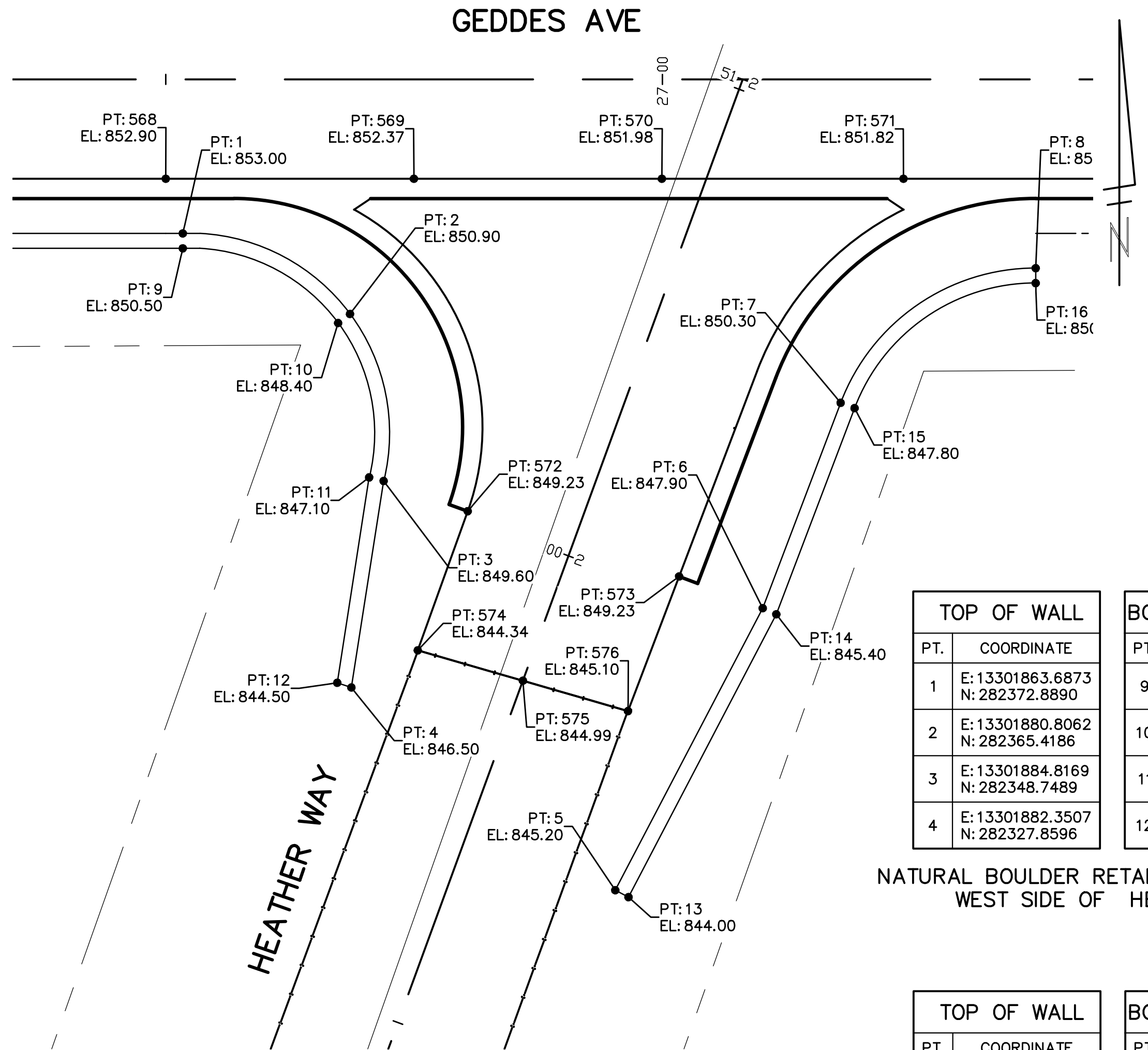
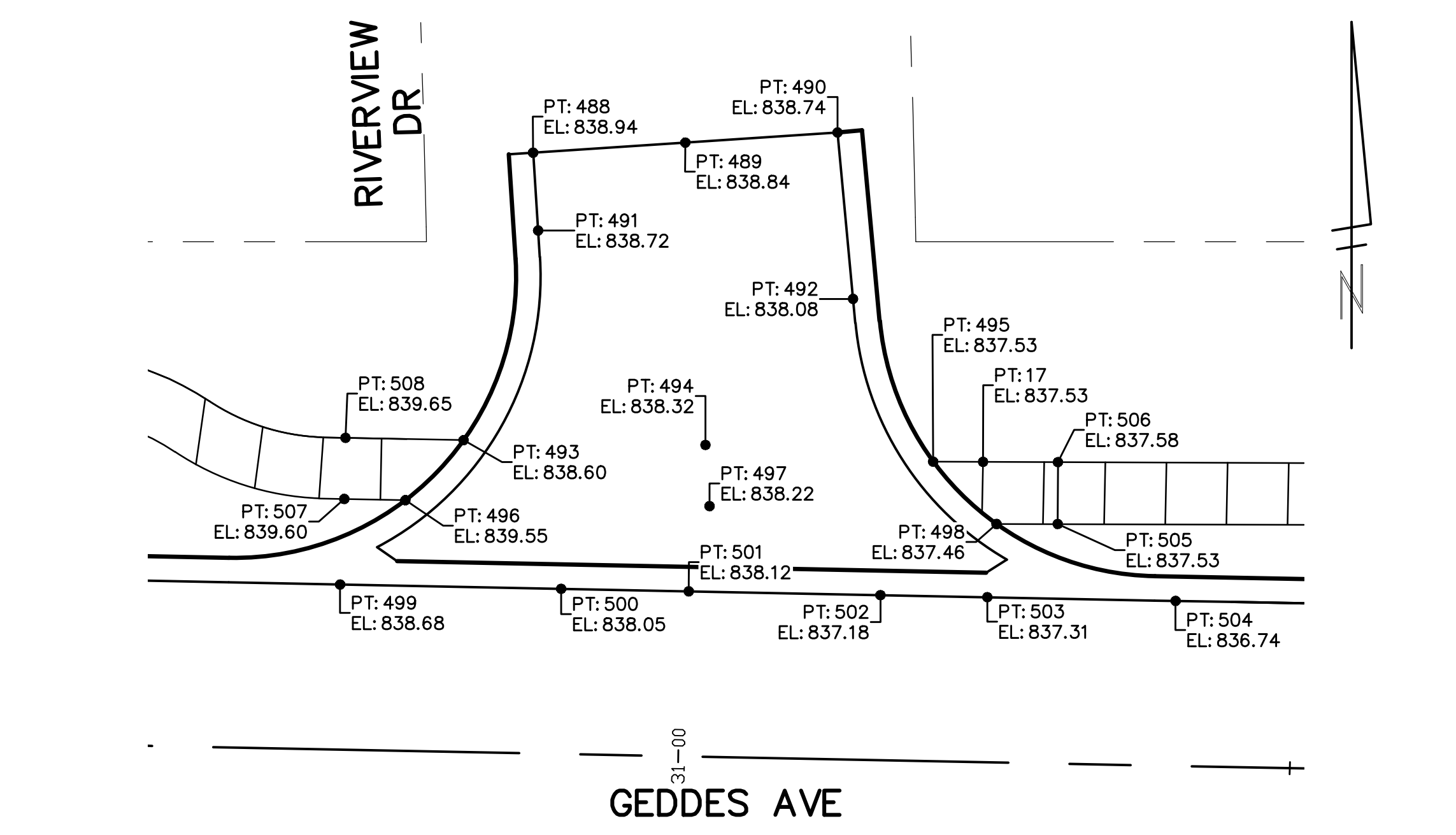
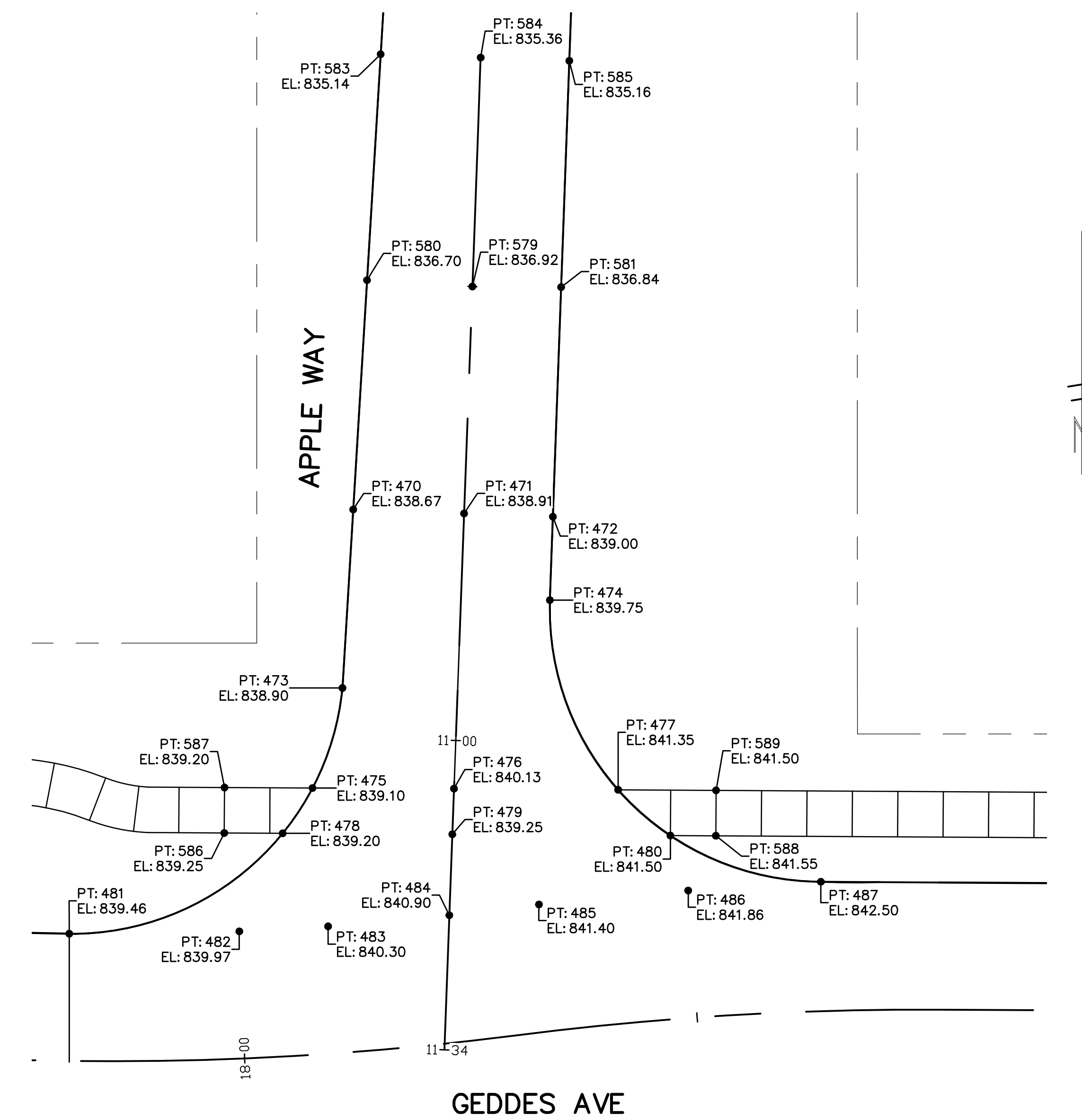
ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	FINAL REVIEW SUBMITTAL	PRELIMINARY PLAN SUBMITTAL	REV.	DESCRIPTION

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
GEDDES AVENUE INTERSECTION AND
PEDESTRIAN CROSSING GRADES

SCALE PLAN: 1"=10'
DRAWING No. DGRD-02
SHEET No.



TOP OF WALL	
PT.	COORDINATE
1	E: 13301863.6873 N: 282372.8890
2	E: 13301880.8062 N: 282365.4186
3	E: 13301884.8169 N: 282348.7489
4	E: 13301882.3507 N: 282327.8596

BOTTOM OF WALL	
PT.	COORDINATE
9	E: 13301863.7433 N: 282371.3901
10	E: 13301879.6481 N: 282364.4651
11	E: 13301883.3479 N: 282349.0524
12	E: 13301880.9111 N: 282328.2809

NATURAL BOULDER RETAINING WALL GRADES WEST SIDE OF HEATHER WAY

TOP OF WALL	
PT.	COORDINATE
5	E: 13301909.6577 N: 282308.4662
6	E: 13301923.4289 N: 282337.3804
7	E: 13301930.4963 N: 282358.3258
8	E: 13301949.6099 N: 282372.5973

BOTTOM OF WALL	
PT.	COORDINATE
13	E: 13301911.0120 N: 282307.8212
14	E: 13301924.8216 N: 282336.8161
15	E: 13301931.9175 N: 282357.8462
16	E: 13301949.6659 N: 282371.0983

NATURAL BOULDER RETAINING WALL GRADES EAST SIDE OF HEATHER WAY

APPLE WAY	
PT.	COORDINATE
470	E: 13301021.7602 N: 282413.1643
471	E: 13301033.9633 N: 282413.2498
472	E: 13301043.7417 N: 282413.3183
473	E: 13301021.4212 N: 282393.4837
474	E: 13301043.8059 N: 282404.1253
475	E: 13301018.6034 N: 282382.3405
476	E: 13301034.1563 N: 282382.9518
477	E: 13301052.2058 N: 282383.5946
478	E: 13301015.5339 N: 282377.2207
479	E: 13301034.1884 N: 282377.9177

APPLE WAY	
PT.	COORDINATE
480	E: 13301058.1657 N: 282378.8138
481	E: 13300992.5521 N: 282365.1688
482	E: 13301011.2349 N: 282366.2357
483	E: 13301020.9687 N: 282367.2069
484	E: 13301034.2453 N: 282368.9959
485	E: 13301044.0401 N: 282370.6090
486	E: 13301060.3828 N: 282372.8439
487	E: 13301074.9247 N: 282374.4360
579	E: 13301033.8040 N: 282438.2493
580	E: 13301022.1956 N: 282438.4492

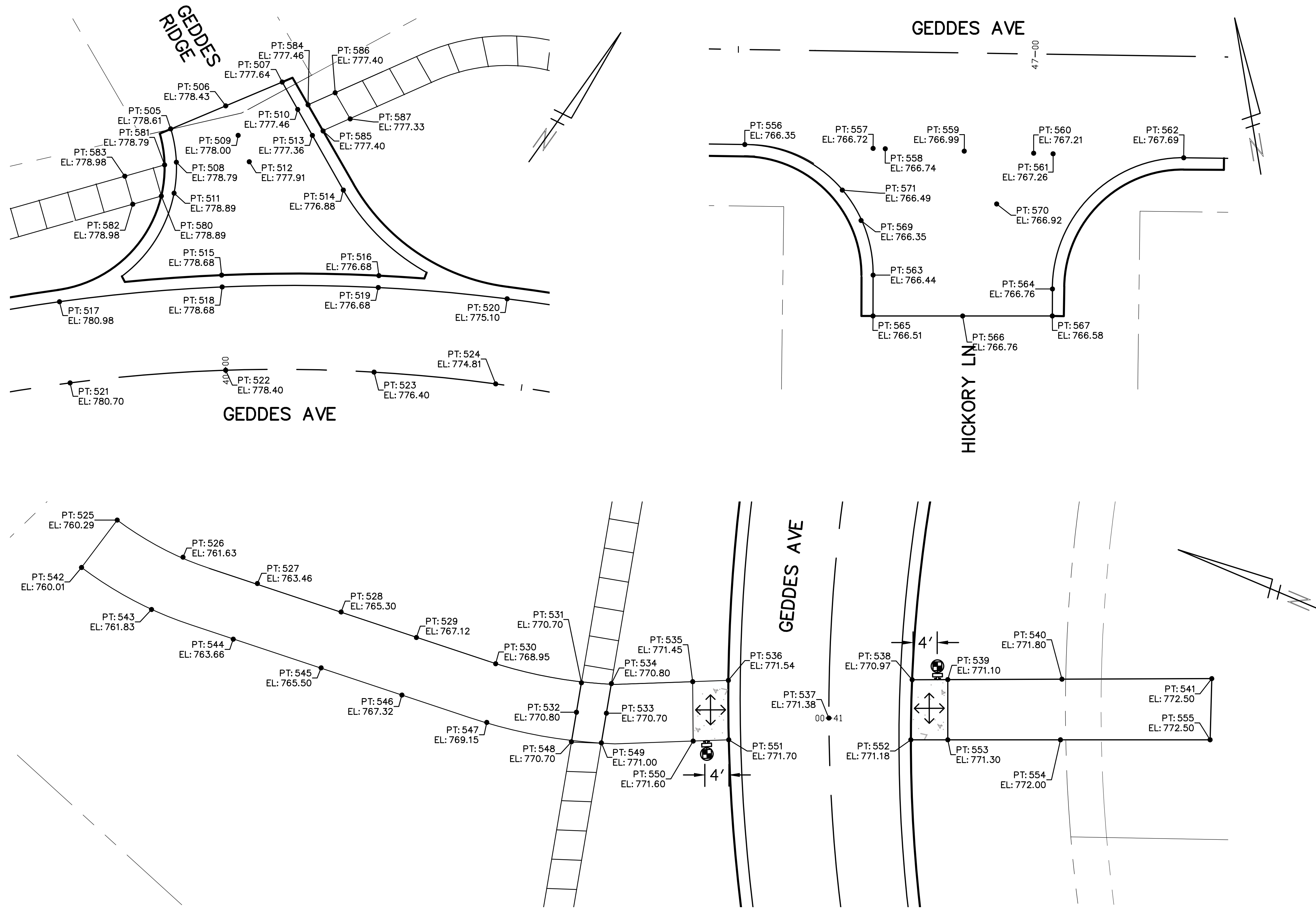
APPLE WAY	
PT.	COORDINATE
581	E: 13301043.5646 N: 282438.5989
583	E: 13301022.6247 N: 282463.3640
584	E: 13301033.6322 N: 282463.4640
585	E: 13301043.3899 N: 282463.5324
586	E: 13301009.1191 N: 282376.9810
587	E: 13301008.9320 N: 282381.9783
588	E: 13301063.1625 N: 282379.0005

RIVERVIEW	
PT.	COORDINATE
17	E: 13302332.4204 N: 282438.9080
488	E: 13302292.8440 N: 282459.5194
489	E: 13302305.0942 N: 282461.8531
490	E: 13302317.3444 N: 282464.1871
491	E: 13302294.0217 N: 282453.2583
492	E: 13302320.2504 N: 282450.8354
493	E: 13302290.0560 N: 282435.5035
494	E: 13302309.7254 N: 282437.5215
495	E: 13302328.3703 N: 282438.4290
496	E: 13302285.9348 N: 282430.0545

RIVERVIEW	
PT.	COORDINATE
497	E: 13302310.6638 N: 282432.5915
498	E: 13302334.1358 N: 282433.9943
499	E: 13302281.4734 N: 282422.5583
500	E: 13302299.4495 N: 282424.4042
501	E: 13302309.8354 N: 282425.4698
502	E: 13302325.4232 N: 282427.0689
503	E: 13302334.1119 N: 282427.9603
504	E: 13302349.4282 N: 282429.5316

RIVERVIEW	
PT.	COORDINATE
505	E: 13302339.0987 N: 282434.6022
506	E: 13302338.5044 N: 282439.6275
507	E: 13302280.9609 N: 282429.5442
508	E: 13302280.4506 N: 282434.5181

HEATHER WAY	
PT.	COORDINATE
568	E: 13301861.7642 N: 282378.3210
569	E: 13301886.7307 N: 282379.2539
570	E: 13301911.6709 N: 282380.1859
571	E: 13301935.9756 N: 282381.0941
572	E: 13301893.3941 N: 282346.0228
573	E: 13301914.9013 N: 282340.2577
574	E: 13301888.8890 N: 282331.8480
575	E: 13301899.5789 N: 282329.1883
576	E: 13301910.2688 N: 282326.5285



PT.	COORDINATE
505	E: 13302962.0768 N: 282958.2681
506	E: 13302966.8963 N: 282967.0941
507	E: 13302971.8150 N: 282976.1700
508	E: 13302966.3447 N: 282954.4875
509	E: 13302971.6348 N: 282964.5262
510	E: 13302976.7341 N: 282974.2029
511	E: 13302969.3011 N: 282950.1725
512	E: 13302975.8794 N: 282962.2258

PT.	COORDINATE
513	E: 13302981.3982 N: 282972.3379
514	E: 13302991.2272 N: 282968.4074
515	E: 13302984.1822 N: 282944.4167
516	E: 13303004.9045 N: 282960.9038
517	E: 13302965.6724 N: 282923.8400
518	E: 13302985.4980 N: 282942.9102
519	E: 13303006.0766 N: 282959.2832
520	E: 13303024.2109 N: 282971.3763

PT.	COORDINATE
521	E: 13302975.6078 N: 282914.2847
522	E: 13302994.7304 N: 282932.3405
523	E: 13303014.4377 N: 282947.7231
524	E: 13303031.6626 N: 282958.9874
525	E: 13302965.6724 N: 282923.8400
526	E: 13302991.2272 N: 282968.4074
527	E: 13302984.1822 N: 282944.4167
528	E: 13302965.6724 N: 282923.8400
529	E: 13302979.9049 N: 282980.3450
530	E: 13303070.7614 N: 283038.2012
531	E: 13302965.0763 N: 282952.8932
532	E: 13302965.0325 N: 282944.3718
533	E: 13302961.0331 N: 282947.2142

PT.	COORDINATE
584	E: 13302977.6113 N: 282975.9021
585	E: 13302982.3379 N: 282974.0462
586	E: 13302979.9049 N: 282980.3450
587	E: 13302984.6316 N: 282978.4891

PT.	COORDINATE
525	E: 13303072.4218 N: 283106.3689
526	E: 13303070.2021 N: 283093.8401
527	E: 13303070.1773 N: 283080.5457
528	E: 13303070.3408 N: 283065.6548
529	E: 13303070.4961 N: 282948.4476
530	E: 13303070.7614 N: 283038.2012
531	E: 13303072.5280 N: 283023.5061
532	E: 13303067.5666 N: 283022.6494

PT.	COORDINATE
533	E: 13303069.0843 N: 283017.8375
534	E: 13303074.0684 N: 283018.6981
535	E: 13303078.9299 N: 283005.8841
536	E: 13303081.1250 N: 283000.2932
537	E: 13303080.7613 N: 282982.2141
538	E: 13303091.5018 N: 282971.1231
539	E: 13303093.5180 N: 282965.4609
540	E: 13303099.9685 N: 282947.3454

PT.	COORDINATE
541	E: 13303108.4352 N: 282923.5677
542	E: 13303062.8896 N: 283109.3917
543	E: 13303060.1321 N: 283095.9213
544	E: 13303059.9850 N: 283081.2778
545	E: 13303060.3427 N: 283065.7093
546	E: 13303060.5406 N: 283051.3520
547	E: 13303060.9398 N: 283036.3326
548	E: 13303062.6052 N: 283021.7927

PT.	COORDINATE
549	E: 13303064.1003 N: 283016.9769
550	E: 13303069.5177 N: 283002.4944
551	E: 13303071.7105 N: 282996.9091
552	E: 13303081.8860 N: 282967.9711
553	E: 13303083.9534 N: 282962.0955
554	E: 13303090.2528 N: 282944.1923
555	E: 13303098.6196 N: 282920.4134

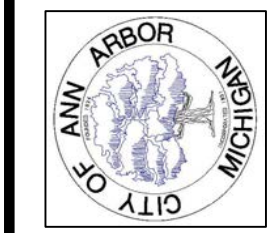
PT.	COORDINATE
556	E: 13303608.5175 N: 282862.2568
557	E: 13303629.1283 N: 282855.7276
558	E: 13303631.0883 N: 282855.1067
559	E: 13303643.7758 N: 282851.0876
560	E: 13303654.9236 N: 282847.5561
561	E: 13303658.0491 N: 282846.5660
562	E: 13303679.0340 N: 282839.9184
563	E: 13303623.3080 N: 282835.2030

PT.	COORDINATE
564	E: 13303651.7287 N: 282824.7046
565	E: 13303621.4143 N: 282828.5802
566	E: 13303635.9395 N: 282824.4564
567	E: 13303650.4647 N: 282820.3327
569	E: 13303623.8684 N: 282844.5975
570	E: 13303646.6049 N: 282841.0384
571	E: 13303622.2248 N: 282850.3825



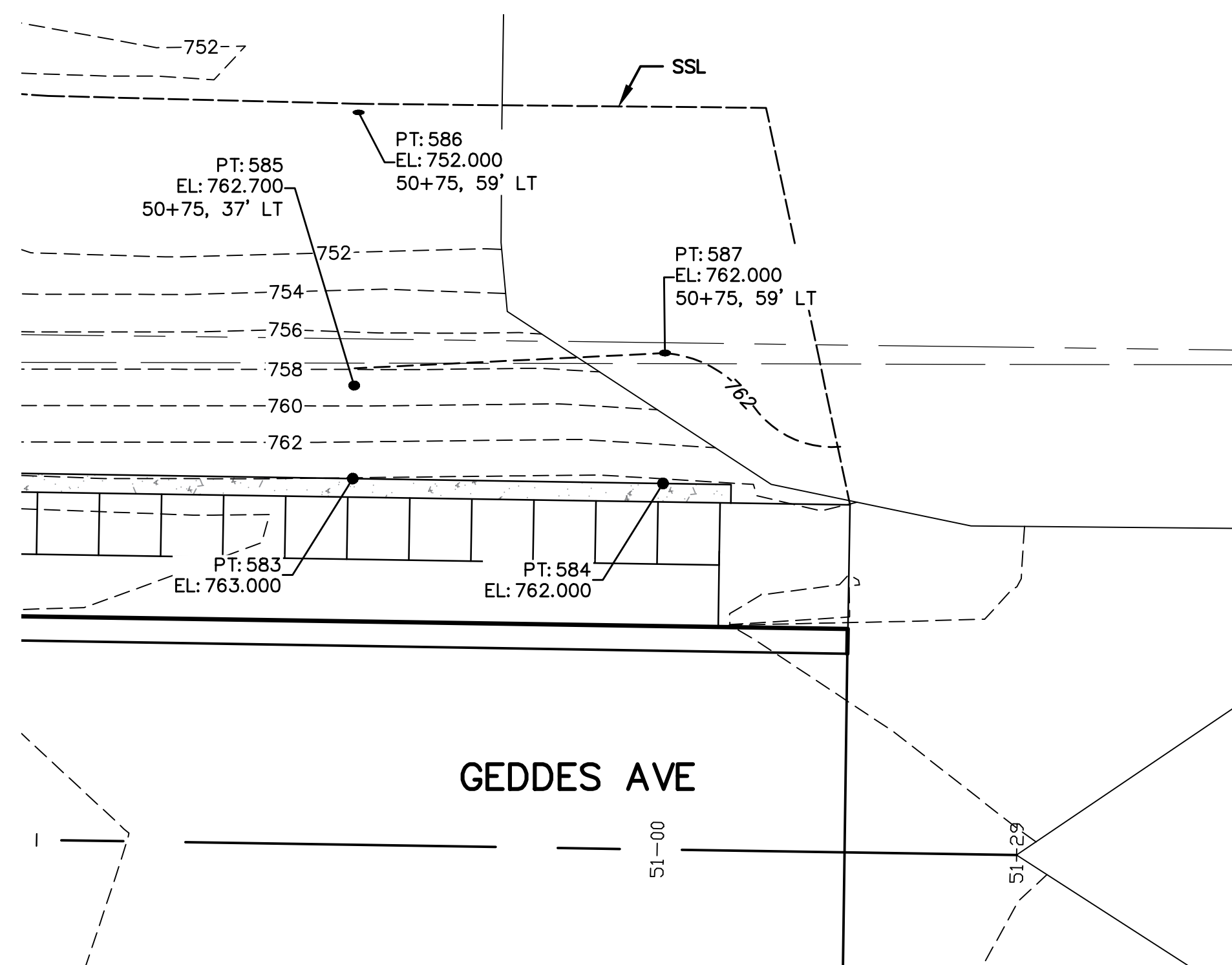
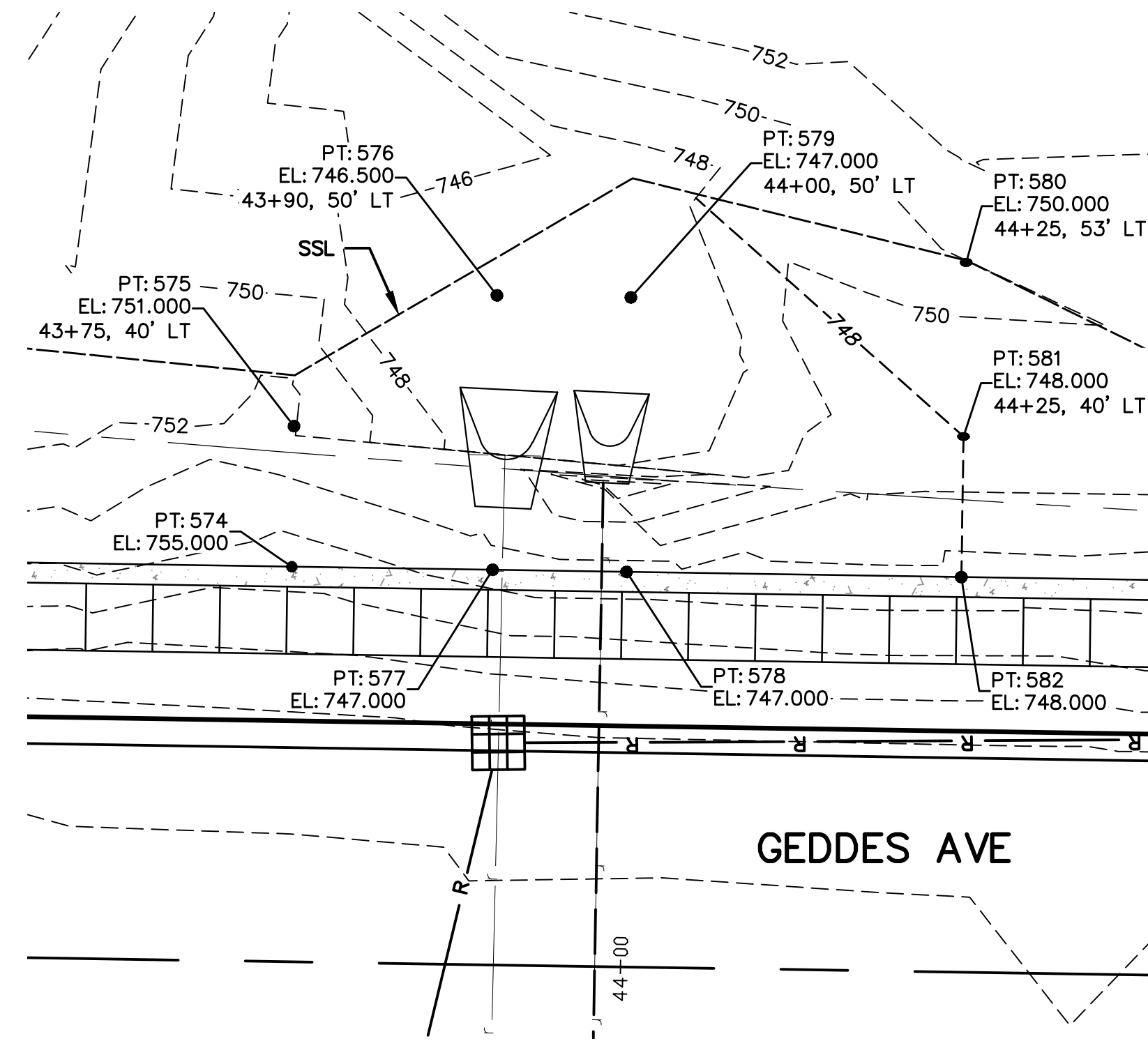
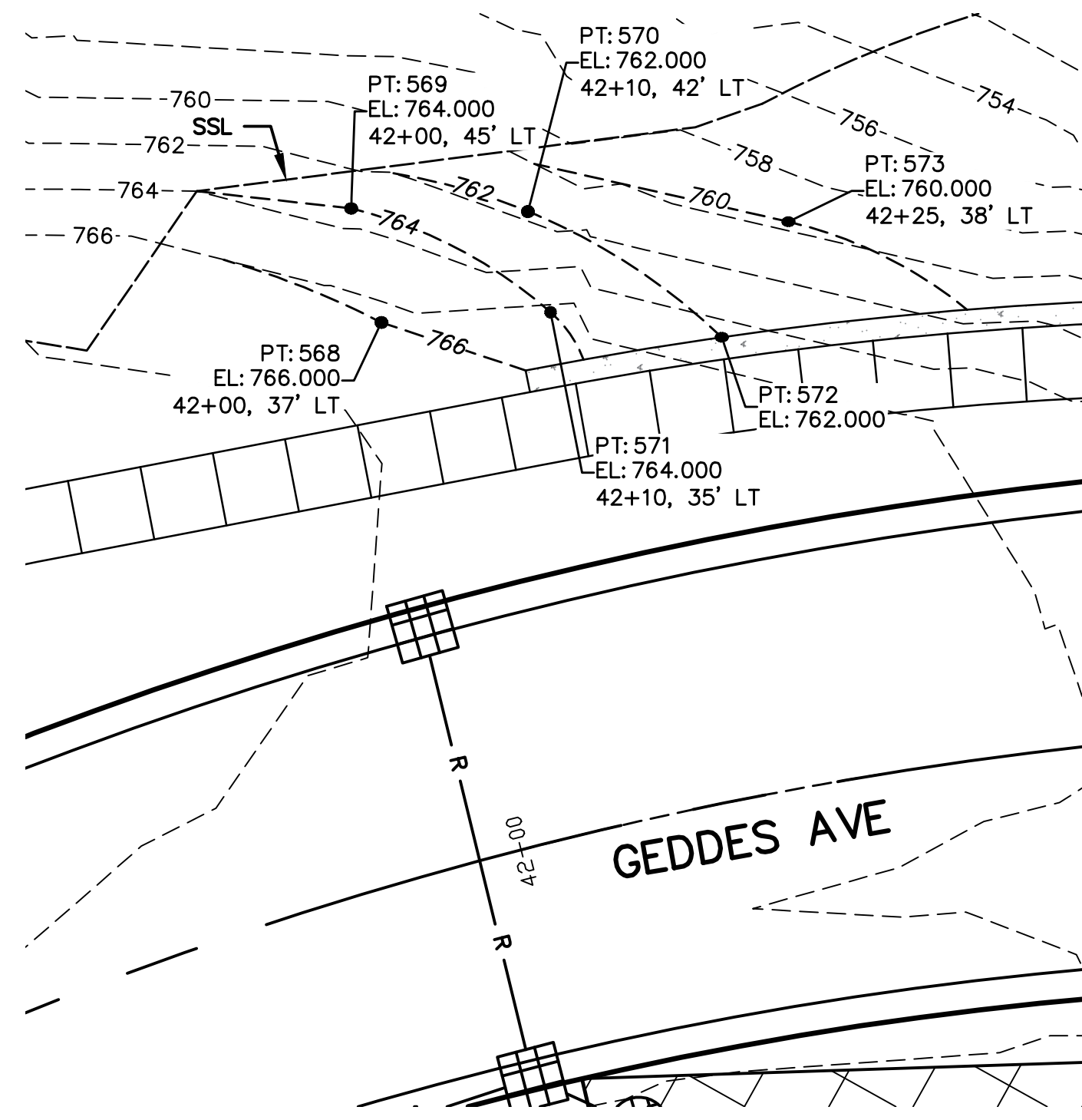
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
1	ISSUED FOR BIDS	APR. 22, 2015	ALP/ANN	CEH
2	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH
3	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/ANN	CEH
4	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/ANN	CEH

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48107-8647
734-794-4410
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
GEDDES AVENUE INTERSECTION AND
PEDESTRIAN CROSSING GRADES

SCALE PLAN: 1"=10'
DRAWING No. DGRD-03
SHEET No.



WEST END OF RETAINING WALL	
PT.	COORDINATE
568	E: 13303179.6043 N: 283034.9601
569	E: 13303179.7463 N: 283042.9588
570	E: 13303191.2218 N: 283039.4801
571	E: 13303190.8372 N: 283032.4907
572	E: 13303201.5501 N: 283027.6911
573	E: 13303208.0390 N: 283033.9929

AT CULVERT END SECTIONS	
PT.	COORDINATE
574	E: 13303357.0007 N: 282985.4062
575	E: 13303360.0245 N: 282995.4614
576	E: 13303377.2689 N: 283000.7180
577	E: 13303371.3652 N: 282981.0865
578	E: 13303380.9416 N: 282978.2066
579	E: 13303386.8452 N: 282997.8382
580	E: 13303411.6501 N: 282993.5115
581	E: 13303407.9063 N: 282981.0623
582	E: 13303404.8825 N: 282971.0071

EAST END OF RETAINING WALL	
PT.	COORDINATE
583	E: 13304027.3623 N: 282783.8139
584	E: 13304051.3032 N: 282776.6144
585	E: 13304029.5222 N: 282790.9962
586	E: 13304035.8726 N: 282812.0685
587	E: 13304054.3312 N: 282786.6770

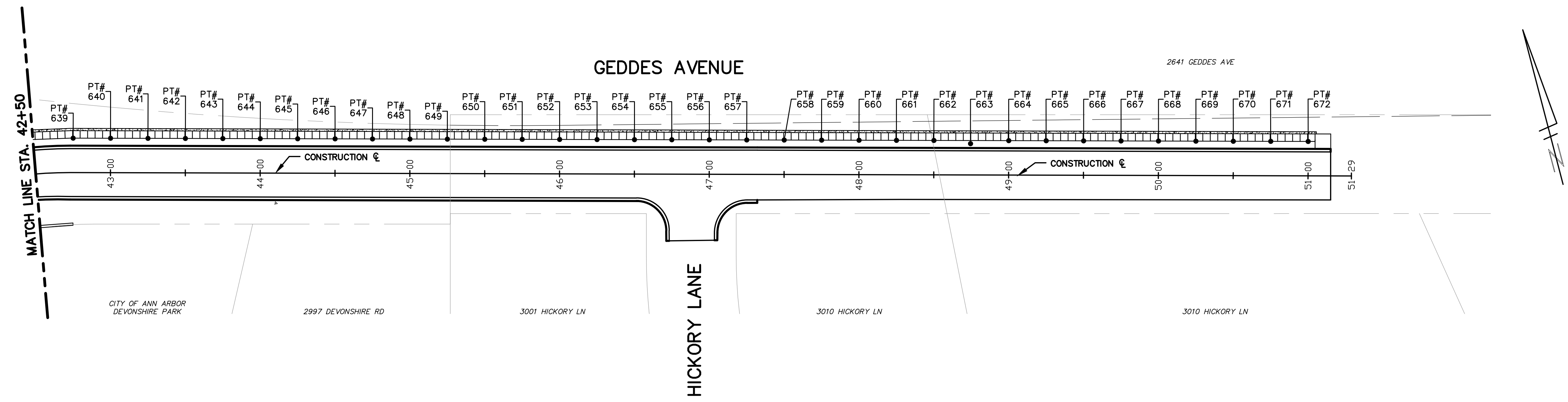


REV.	DESCRIPTION	DATE	DRAWN	CHECKED
APR. 22, 2015	ISSUED FOR BIDS	APR. 22, 2015	ALP/ANN	CEH
MAR. 26, 2015	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH
MAR. 13, 2015	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/ANN	CEH
JAN. 29, 2015	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/ANN	CEH

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 SCALE PLAN: 1"=10'
 SHEET No. 79 OF 187
 GEDDES AVENUE IMPROVEMENTS
 DETAIL GRADES AT
 REINFORCED CONCRETE RETAINING WALL
 DRAWING No. DGRD-04



CITY OF ANN ARBOR
DEVONSHIRE PARK

2997 DEVONSHIRE RD

3001 HICKORY LN

HICKORY LANE

3010 HICKORY LN

3010 HICKORY LN

2641 GEDDES AVE

SIDEWALK GRADES		
PT.	ELEV.	COORDINATE
639	766.68	E: 13303259.3652 N: 283007.9797
640	766.45	E: 13303283.3061 N: 283000.7802
641	766.23	E: 13303307.2470 N: 282993.5806
642	766.00	E: 13303331.1879 N: 282986.3811
643	765.78	E: 13303355.1288 N: 282979.1815
644	765.56	E: 13303379.0697 N: 282971.9820
645	765.39	E: 13303403.0106 N: 282964.7825
646	765.29	E: 13303426.9515 N: 282957.5829
647	765.29	E: 13303450.8924 N: 282950.3834
648	765.36	E: 13303474.8333 N: 282943.1838

SIDEWALK GRADES		
PT.	ELEV.	COORDINATE
649	765.51	E: 13303498.7742 N: 282935.9843
650	765.75	E: 13303522.7151 N: 282928.7847
651	766.06	E: 13303546.6560 N: 282921.5852
652	766.46	E: 13303570.5969 N: 282914.3856
653	766.88	E: 13303594.5378 N: 282907.1861
654	767.31	E: 13303618.4787 N: 282899.9865
655	767.73	E: 13303642.3585 N: 282892.8054
656	768.15	E: 13303666.3605 N: 282885.5874
657	768.57	E: 13303690.3014 N: 282878.3879
658	768.97	E: 13303714.2423 N: 282871.1884

SIDEWALK GRADES		
PT.	ELEV.	COORDINATE
659	769.37	E: 13303738.1960 N: 282863.9849
660	769.65	E: 13303762.1369 N: 282856.7854
661	769.84	E: 13303786.0778 N: 282849.5859
662	769.93	E: 13303810.0187 N: 282842.3863
663	769.93	E: 13303832.8647 N: 282833.3677
664	769.84	E: 13303857.9005 N: 282827.9872
665	769.70	E: 13303881.8414 N: 282820.7877
666	769.49	E: 13303905.7823 N: 282813.5881
667	769.14	E: 13303929.7232 N: 282806.3886
668	768.67	E: 13303953.6641 N: 282799.1890

SIDEWALK GRADES		
PT.	ELEV.	COORDINATE
669	768.06	E: 13303977.6050 N: 282791.9895
670	767.38	E: 13304001.5459 N: 282784.7899
671	766.71	E: 13304025.4868 N: 282777.5904
672	766.04	E: 13304049.4277 N: 282770.3909

BENCH MARK INFORMATION		
B.M.#	DESCRIPTION	ELEV.
15	SPIKE IN N. SIDE POWER POLE ON THE S. SIDE GEDDES, 2ND POLE W'LY OF HICKORY LANE	764.777
16	SPIKE IN N. SIDE POWER POLE AT THE SE CORNER OF GEDDES AND HICKORY LANE	768.324

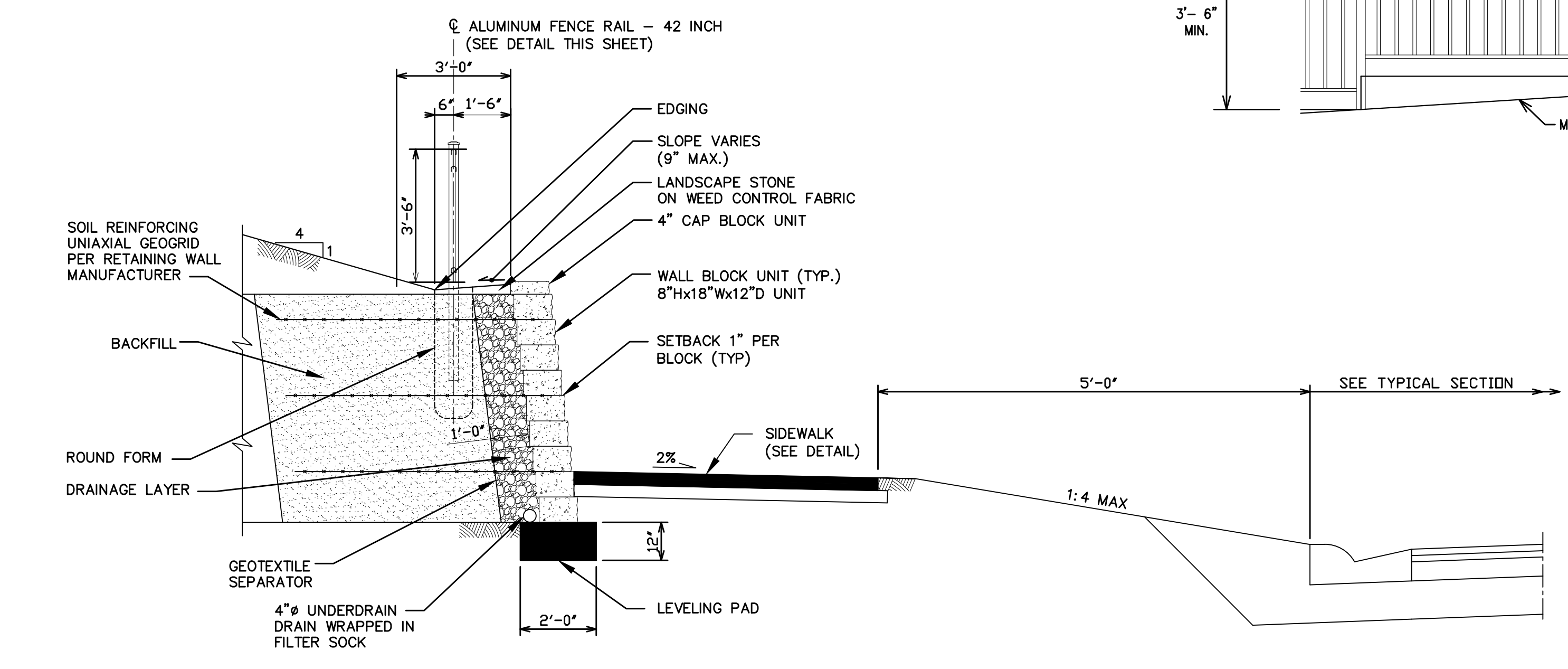
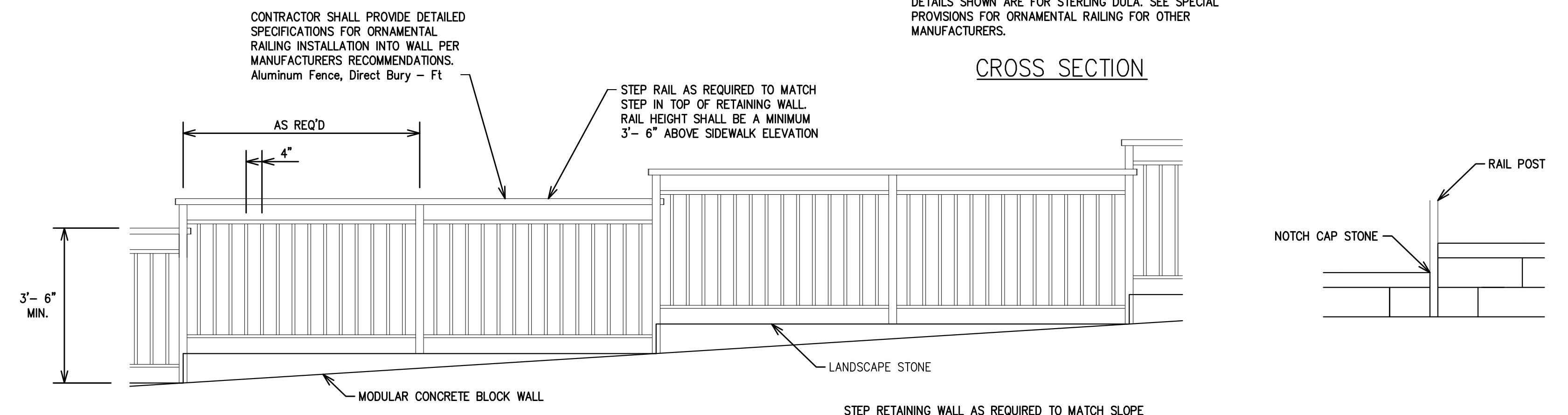
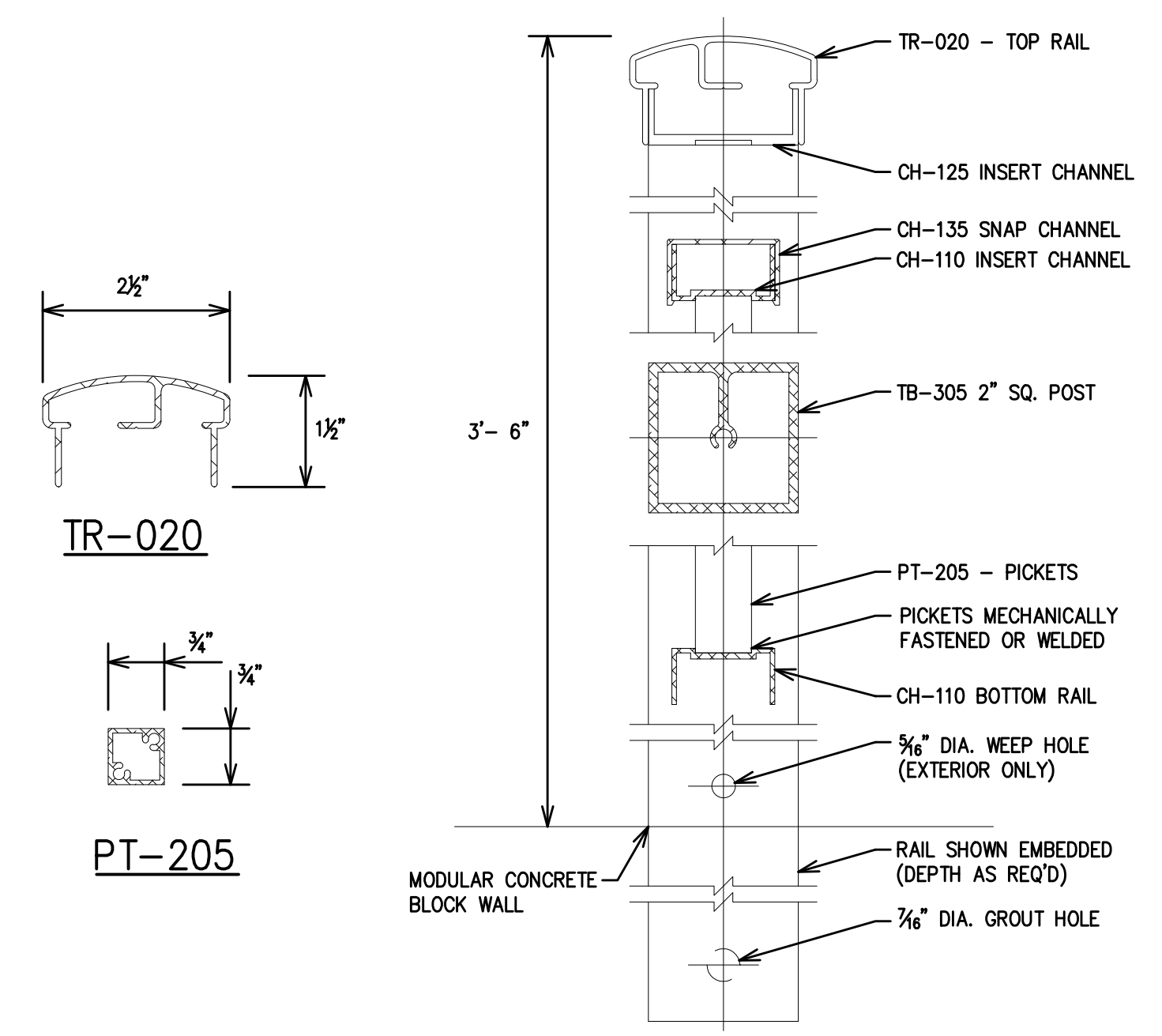
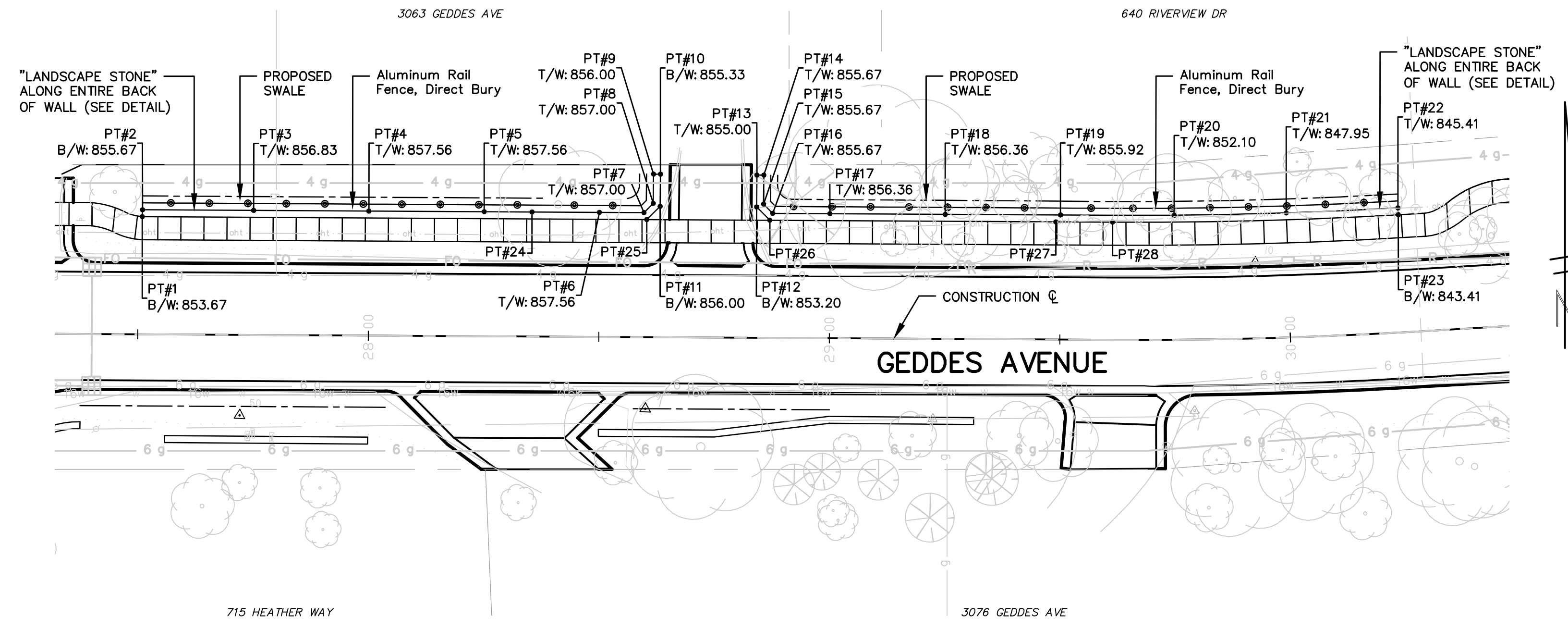
ISSUED FOR BIDS	DATE	ALP/ANN	CEH
FINAL PLAN SUBMITTAL	APR. 22, 2015	ALP/ANN	CEH
FINAL REVIEW SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH
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	JAN. 29, 2015	ALP/ANN	CEH
REV.	DATE	DRWN	CHECKED

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
GEDDES AVENUE SIDEWALK PLAN
STA. 42+50 TO STA. 51+15 P.O.E.

SCALE PLAN: 1"=40'
DRAWING No. PPSW-03
SHEET No.



MODULAR CONCRETE BLOCK WALL SECTION
NOT TO SCALE

- SECTION 1 NOTES:**
1. WALL LEVELING PAD, WALL BLOCKS, CAP BLOCKS, 4" UNDERDRAIN, DRAINAGE LAYER, BACKFILL AND UNIAXIAL GEOGRID AND GEOTEXTILE SEPARATOR ARE INCLUDED IN Modular Concrete Block Wall.
 2. ROUND FORM, AND ALUMINUM FENCE RAIL 42 INCH AS DETAILED ON THIS SHEET IS INCLUDED IN Aluminum Rail Fence, Direct Bury.
 3. EDGING, WEED CONTROL FABRIC AND LANDSCAPE STONE INCLUDED IN Landscape Stone.

WALL LAYOUT		WALL LAYOUT		WALL LAYOUT		WALL LAYOUT	
PT#	COORDINATE	PT#	COORDINATE	PT#	COORDINATE	PT#	COORDINATE
1	E: 13301961.2117 N: 282417.5670	9	E: 13302071.5997 N: 282431.5441	17	E: 13302110.2082 N: 282424.6306	25	E: 13302070.5647 N: 282421.6481
2	E: 13301961.2119 N: 282419.0629	10	E: 13302073.0989 N: 282431.5947	18	E: 13302135.1908 N: 282425.5641	26	E: 13302097.2230 N: 282422.6443
3	E: 13301985.2924 N: 282419.9628	11	E: 13302073.3339 N: 282424.6323	19	E: 13302160.1734 N: 282426.4976	27	E: 13302159.2318 N: 282424.9614
4	E: 13302010.2780 N: 282420.8964	12	E: 13302094.2389 N: 282425.4135	20	E: 13302184.7860 N: 282427.5062	28	E: 13302171.5160 N: 282425.4204
5	E: 13302035.2605 N: 282421.8300	13	E: 13302094.0064 N: 282432.3006	21	E: 13302209.0654 N: 282429.0455		
6	E: 13302060.2431 N: 282422.7635	14	E: 13302095.5055 N: 282432.3512	22	E: 13302233.2162 N: 282431.1814		
7	E: 13302069.8878 N: 282423.1239	15	E: 13302095.7170 N: 282426.0882	23	E: 13302233.3669 N: 282429.6889		
8	E: 13302071.8139 N: 282425.1995	16	E: 13302097.7879 N: 282424.1664	24	E: 13302045.6211 N: 282422.2171		

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

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	APR. 22, 2015	ALP/ANN	CEH
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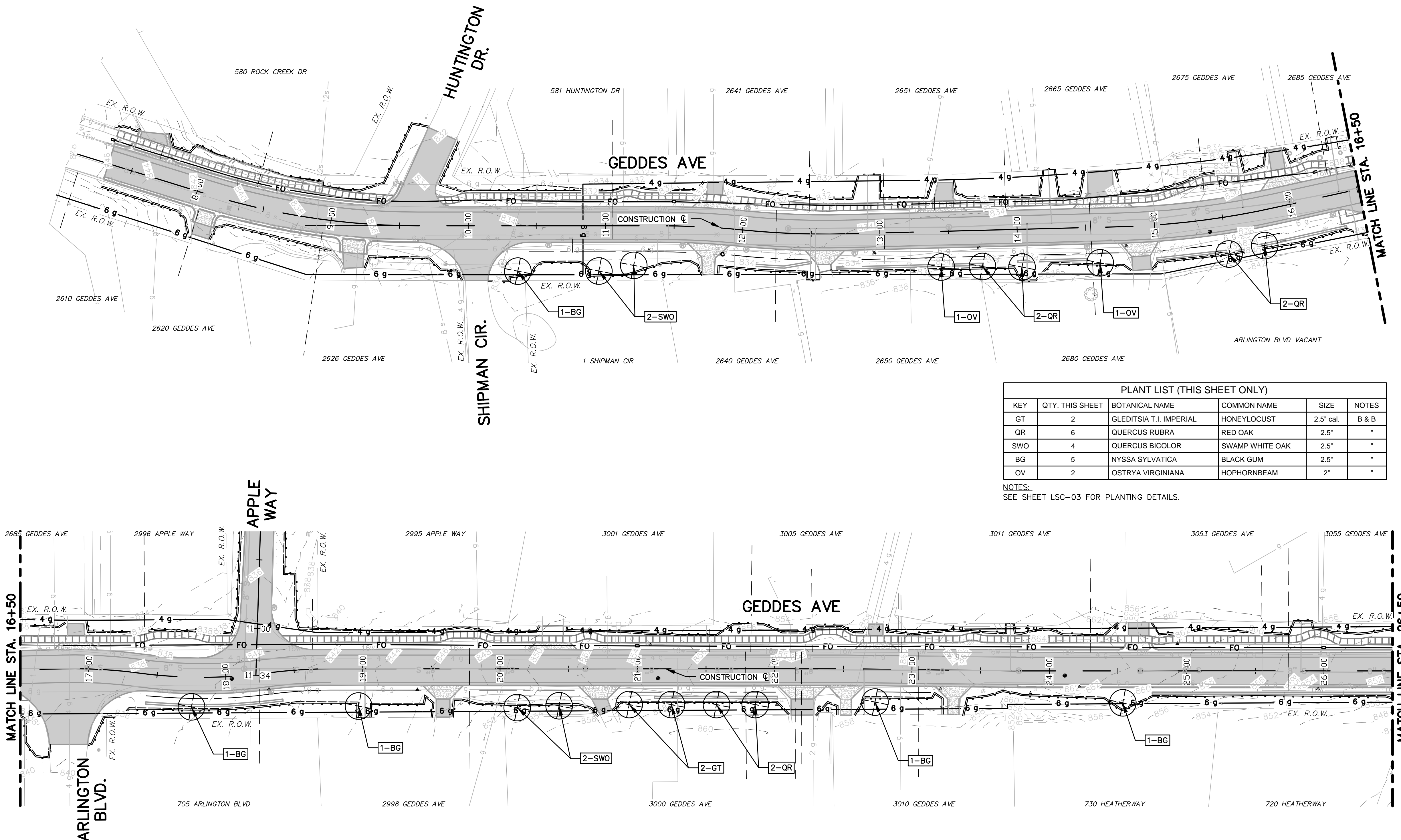
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CITY OF ANN ARBOR MICHIGAN

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
GEDDES AVENUE MODULAR CONCRETE BLOCK WALL

SCALE PLAN: 1"=20'
DRAWING No. ppwall-01
SHEET No.

83 OF 187



PLANT LIST (THIS SHEET ONLY)					
KEY	QTY. THIS SHEET	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
GT	2	GLEDITSIA T.I. IMPERIAL	HONEYLOCUST	2.5" cal.	B & B
QR	6	QUERCUS RUBRA	RED OAK	2.5"	*
SWO	4	QUERCUS BICOLOR	SWAMP WHITE OAK	2.5"	*
BG	5	NYSSA SYLVATICA	BLACK GUM	2.5"	*
OV	2	OSTRYA VIRGINIANA	HOPHORNBEAM	2"	*

NOTES:
SEE SHEET LSC-03 FOR PLANTING DETAILS.

LANDSCAPING NOTES:

- VERIFY ALL CONDITIONS ON SITE PRIOR TO COMMENCING CONSTRUCTION AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
- VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES AND SERVICES PRIOR TO COMMENCING WORK. CONTRACTOR IS RESPONSIBLE FOR ANY COST INCURRED DUE TO DAMAGED UTILITIES.
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES REFLECTED ON THE PLANT LIST. IF A DISCREPANCY EXISTS BETWEEN THE LIST AND THE PLAN, THE PLAN SHALL BE HELD VALID.
- INSTALLATION AND SIZE OF ALL PLANT MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARDS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERY MEN AND WCWRC.
- THE LANDSCAPE CONTRACTOR SHALL CONTACT THE ENGINEER PRIOR TO BEGINNING CONSTRUCTION. DISCREPANCIES BETWEEN THE PLANS AND ACTUAL SITE CONDITIONS OR OTHER PROBLEM AREAS SHALL BE RESOLVED AT THIS TIME.
- THE LOCATION OF ALL PLANTS SHALL BE SCALED FROM THE DRAWINGS OR INTERPRETED FROM THE PLANT LIST.
- IF ROUGH GRADE IS DONE BY OTHERS, THE CONTRACTOR SHOULD REVIEW THAT GRADE AND ADDRESS ANY PROBLEMS WITH THE OWNER. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL GRADING AND SITE SURFACE DRAINAGE, DRAIN TO PAVING, CATCH BASIN ETC. NO LOW SPOTS THAT HOLD STANDING WATER WILL BE ACCEPTED.
- ANY RAISED EARTH BERMS SHOWN ON THE PLANS SHALL BE MADE ENTIRELY OF LIGHT ORGANIC SOILS AND SHALL BLEND SMOOTHLY INTO EXISTING TOPOGRAPHY.
- WATER-IN ALL PLANT MATERIAL IMMEDIATELY AFTER INSTALLATION.
- SUBMIT SAMPLES OF MULCH, TOPSOIL, PRE-EMERGENT, STONE ETC., AS REQUIRED BY THE PROJECT.
- LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR SUPPLY AND PLACEMENT OF TOPSOIL PER SPECIFICATIONS.
- ALL TREES SHALL HAVE CLAY LOAM ROOT BALLS - NO SAND BALLS ACCEPTED.
- SNOW/TREE PROTECTION FENCING SHALL BE INSTALLED AROUND THE PERIMETER OF WORK AREA TO PROTECT EXISTING TREES AND PROPERTY AS DIRECTED BY THE ENGINEER.
- DIG SHRUB PIT A MINIMUM OF 1 FT. LARGER THAN SHRUB ROOT BALLS AND TREE PITS 2 FT. LARGER THAN ROOT BALLS. BACKFILL WITH TWO PARTS TOP SOIL. TWO PARTS SOIL FROM EXCAVATED PLANTING HOLE AND ONE PART PEAT. PLANT TREES AND SHRUBS AT THE SAME GRADE LEVEL AT WHICH THEY WERE PLANTED AT THE NURSERY. IF WET CLAY SOILS ARE EVIDENT, PLANT TREES AND SHRUBS HIGHER.
- REMOVE ALL TWINE, WIRE AND BURLAP FROM THE TOP 1#3 OF TREE AND SHRUB EARTH BALLS AND FROM TREE TRUNKS. REMOVE ALL NON-BIODEGRADABLE MATERIAL SUCH AS PLASTIC OR NYLON COMPLETELY.
- SHRUB BEDS ARE TO BE MULCHED WITH SHREDDED BARK MULCH TO A MINIMUM DEPTH OF 4 INCHES. ONLY NATURAL-COLORED SHREDDED HARDWOOD BARK MULCH WILL BE ACCEPTED.
- EXISTING LAWN AREAS THAT ARE DAMAGED DURING CONSTRUCTION MUST BE INSPECTED BY THE ENGINEER TO DETERMINE VIABILITY. IF THE EXISTING LAWN IS FOUND TO BE LEVEL, HEALTHY, DENSE AND FREE FROM WEEDS, LAWN MAY NOT REQUIRE REPLACEMENT OR RENOVATION. IF RENOVATION IS REQUIRED OR IS PART OF THE APPROVED PLAN, THEN THE FOLLOWING REQUIREMENTS WILL APPLY:
 - EXISTING LAWN FOUND TO BE IN POOR CONDITION MUST FIRST BE SPRAYED WITH ROUND-UP (OR EQUAL) TO KILL THE EXISTING LAWN AND WEED AREAS. WAIT FOR A MINIMUM PERIOD OF SEVEN (7) DAYS FOR THE HERBICIDE TO TAKE EFFECT THEN REMOVE ALL DEAD SOD AND WEEDS TO A MINIMUM OF FOUR (4) - SIX (6) INCHES. NEW TOPSOIL TO ALL LAWN AREAS TO BE REPLACED. BACK FILL AND COMPACT TOPSOIL TO THE TOP OF ALL CURBS AND WALKS PRIOR TO SODDING/SEEDING. REGRADE TO ELIMINATE ALL BUMPS AND DEPRESSIONS AND RESOD ALL AREAS.
 - EXISTING LAWN FOUND TO BE GENERALLY IN GOOD CONDITION BUT WITH BARE, SPARSE OR WEEDY AREAS MUST BE RENOVATED BY FILLING IN LOW AREAS, RAKING, OVERSEEDING AND TOP DRESSING ALL SPARSE AND BARE SPOTS AND BY INITIATING A WEED AND FEED PROGRAM.
- PLANT MATERIAL WITH 25% OR GREATER DIE BACK, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED AS STIPULATED ABOVE. THAN 20% BY WEIGHT OF ORGANIC MATTER WITH A PH RANGE FROM 6.0 TO 7.0. SOIL SHALL BE FREE OF CLAY LUMPS, COARSE SAND, STONES, PLANT ROOTS, STICKS OR OTHER FOREIGN MATERIAL.
- TOPSOIL SHALL BE FERTILE, FRIABLE NATURAL TOPSOIL OF CLAY LOAM CHARACTER CONTAINING AT LEAST 5% BUT NOT MORE.



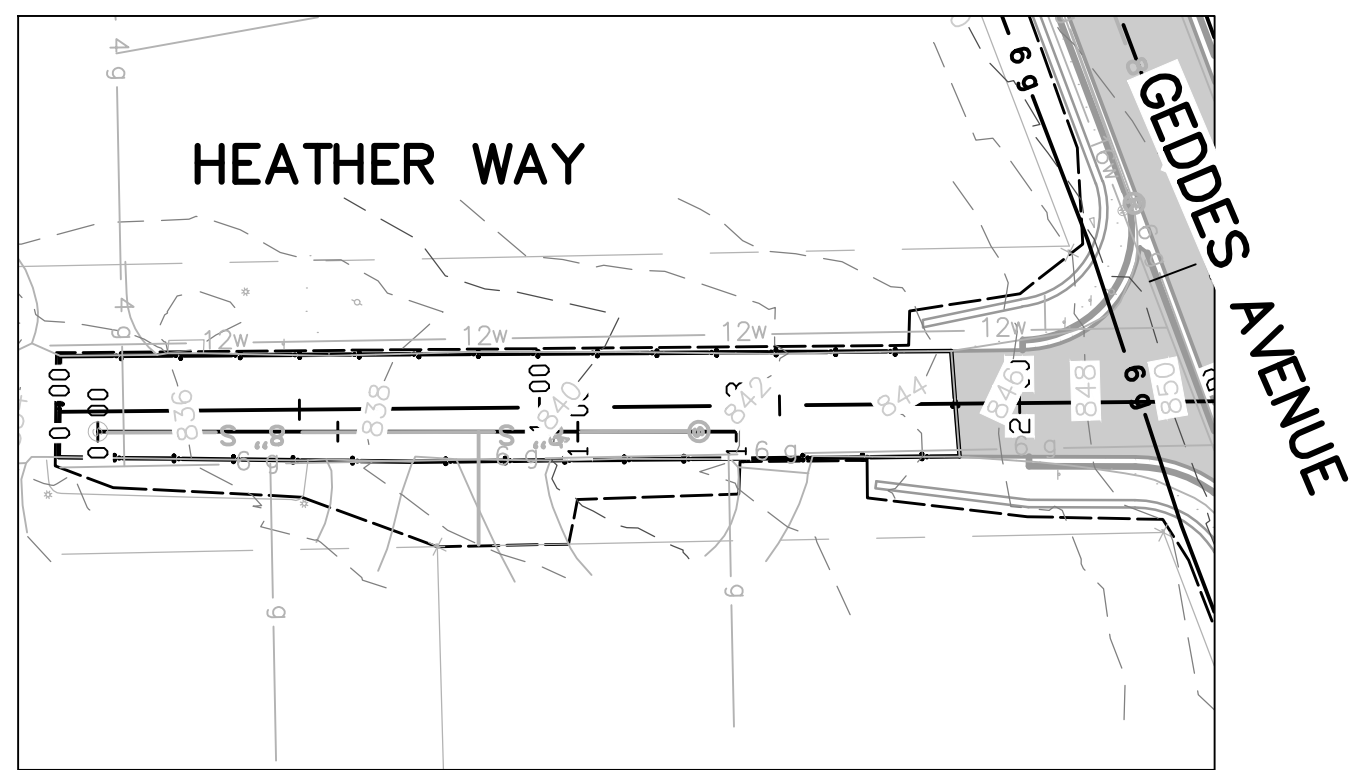
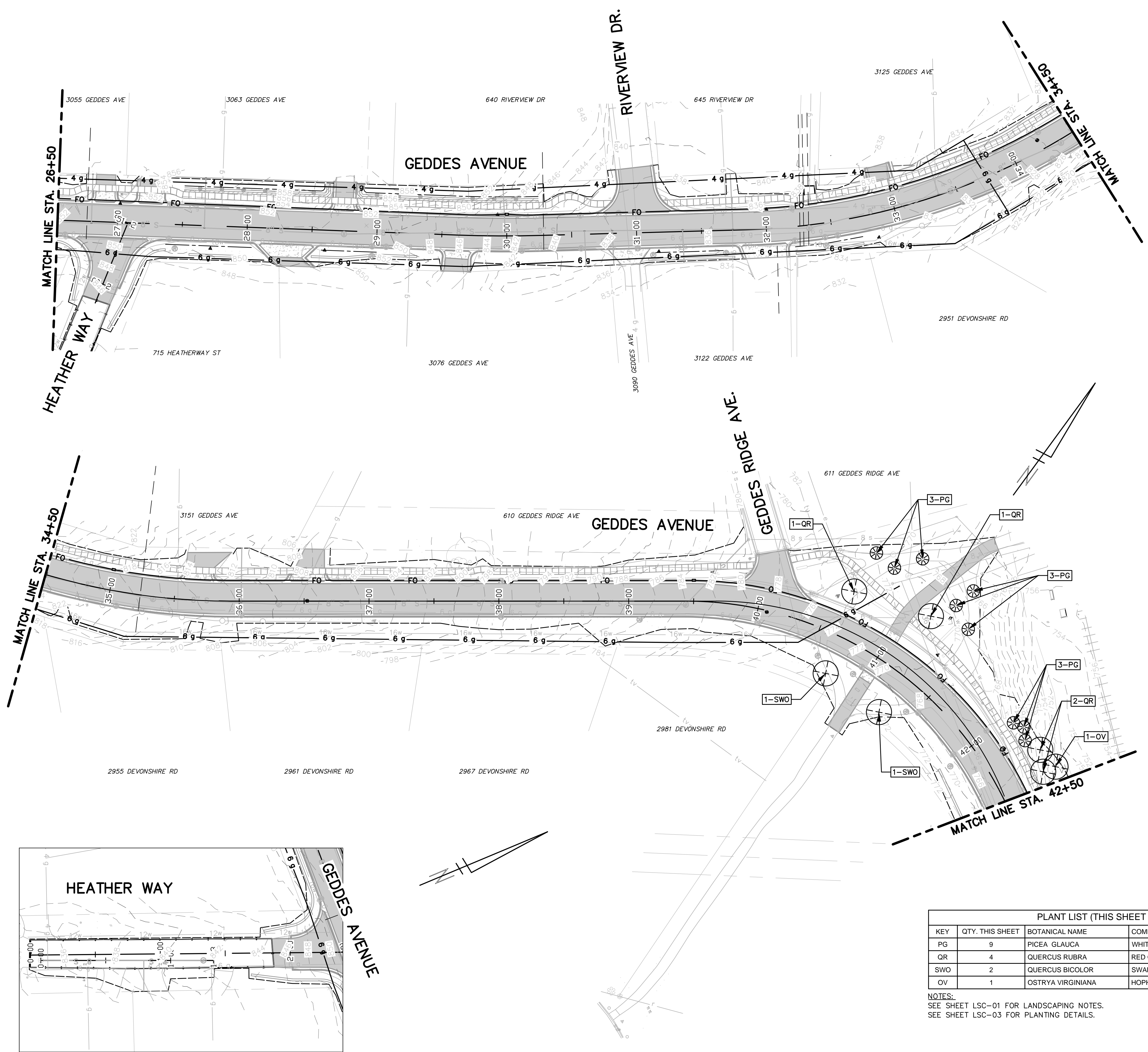
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GEDDES AVENUE IMPROVEMENTS
LANDSCAPING PLAN
STA. 7+32 (P.O.B.) TO STA. 26+50

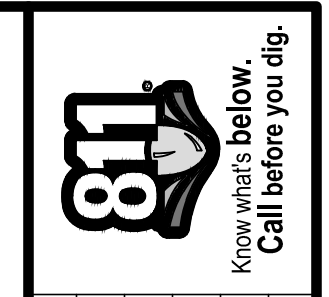
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SHEET No.



PLANT LIST (THIS SHEET ONLY)

KEY	QTY. THIS SHEET	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
PG	9	PICEA GLAUCA	WHITE SPRUCE	10' ht.	*
QR	4	QUERCUS RUBRA	RED OAK	2.5'	*
SWO	2	QUERCUS BICOLOR	SWAMP WHITE OAK	2.5'	*
OV	1	OSTRYA VIRGINIANA	HOPHORNBEAM	2'	*

NOTES:
 SEE SHEET LSC-01 FOR LANDSCAPING NOTES.
 SEE SHEET LSC-03 FOR PLANTING DETAILS.



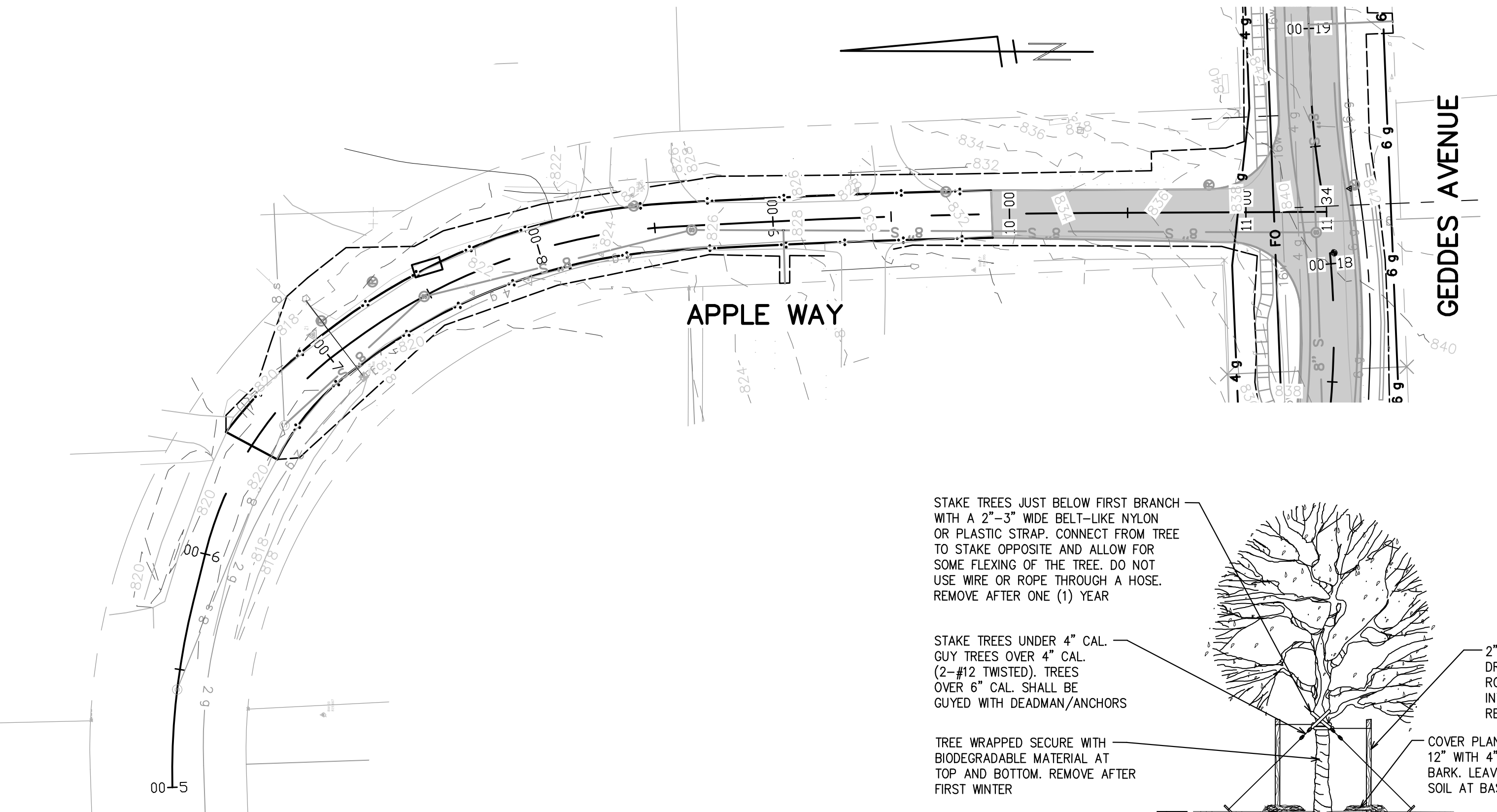
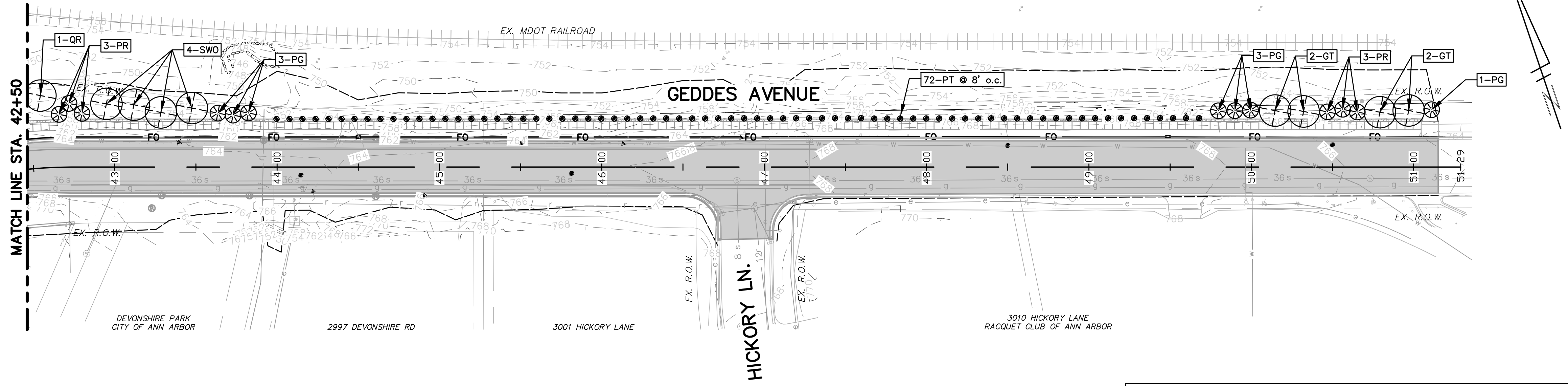
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PROJECT MANAGEMENT – PUBLIC SERVICES – CITY OF ANN ARBOR
 GEDDES AVENUE IMPROVEMENTS
 LANDSCAPING PLAN
 GEDDES AVENUE STA. 26+50 TO STA. 42+50
 HEATHER WAY STA. 0+00 TO 1+53 (P.O.E.)

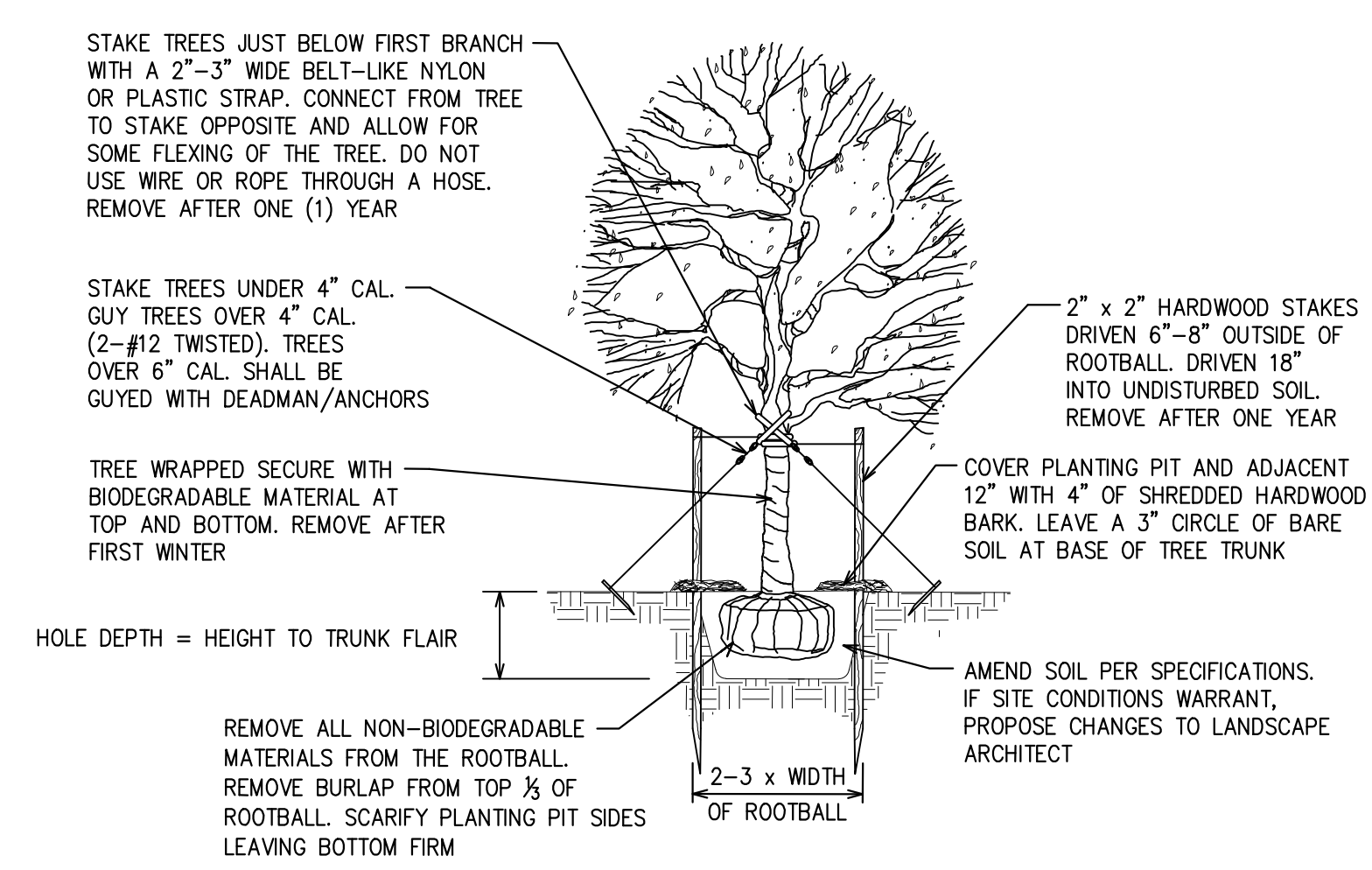
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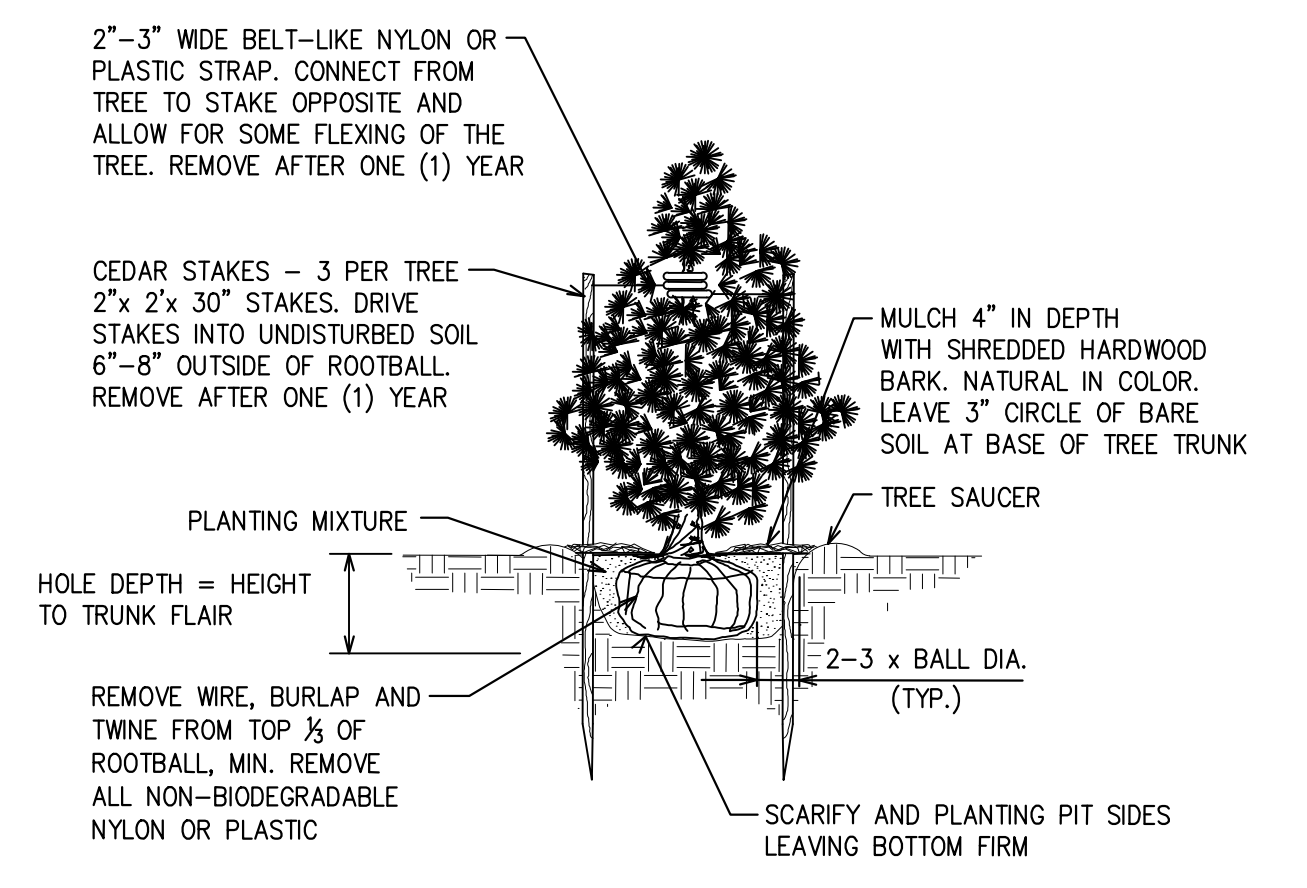
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KEY	QTY. THIS SHEET	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
GT	4	GLEDITSIA T.I. IMPERIAL	HONEYLOCUST	2.5" cal.	B & B
PG	7	PICEA GLAUCA	WHITE SPRUCE	10' ht.	*
PR	6	PINUS RUBRA	RED PINE	10' ht.	*
QR	1	QUERCUS RUBRA	RED OAK	2.5"	*
SWO	4	QUERCUS BICOLOR	SWAMP WHITE OAK	2.5"	*
PT	72	PARTHENOCISSUS TRICUSPIDATA	VIRGINA CREEPER	#1	CONT.

NOTES:
SEE SHEET LSC-01 FOR LANDSCAPING NOTES.



DECIDUOUS TREE PLANTING
NO SCALE



EVERGREEN TREE PLANTING
NO SCALE

- NOTES:
- DO NOT STAKE TREES UNLESS IN HEAVY CLAY SOIL, WINDY SITES, 3" GREATER IN DIAMETER OR LARGE CROWN
 - REMOVE SECONDARY LEADERS. DO NOT PRUNE TERMINAL LEADER OR BRANCH TIPS. PRUNE ALL DEAD AND BROKEN BRANCHES.
 - REMOVE ALL TAGS, STRINGS, PLASTICS AND ANY OTHER MATERIALS WHICH ARE UNSIGHTLY OR COULD CAUSE GIRDLING.
 - SAME STANDARDS APPLY FOR EVERGREEN AND ORNAMENTAL TREES. PRUNE OFF SUCKERS

- NOTES:
- DO NOT STAKE TREES UNLESS IN HEAVY CLAY SOIL, WINDY SITES, 3" GREATER IN DIAMETER OR LARGE CROWN
 - TREE SHALL BE PLANTED SLIGHTLY HIGHER THAN FINISH GRADE AS DIRECTED BY THE LANDSCAPE ARCHITECT.
 - DO NOT PRUNE TERMINAL LEADER. PRUNE ONLY DEAD OR BROKEN BRANCHES.



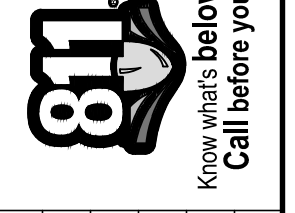
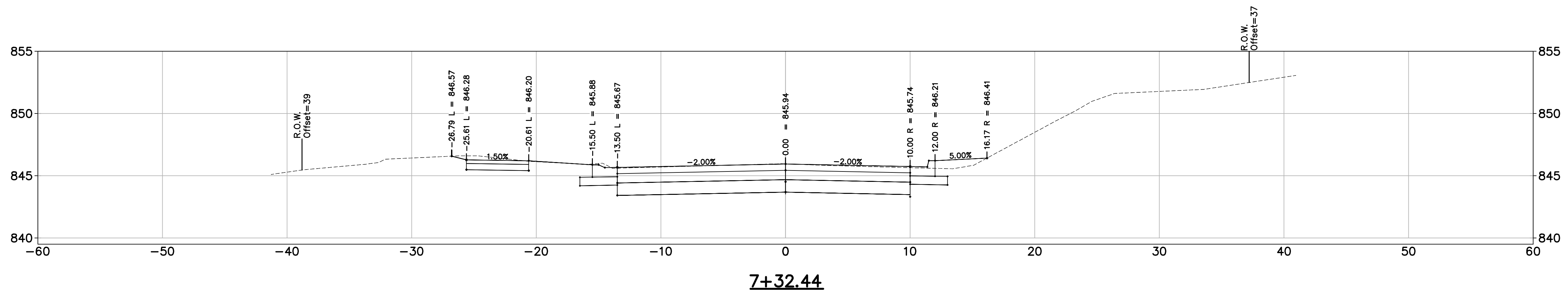
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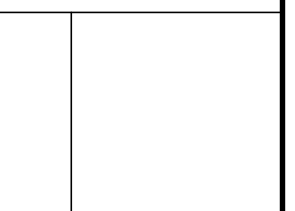
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GEDES AVENUE IMPROVEMENTS
LANDSCAPING PLAN
GEDES AVENUE STA. 42+50 TO STA. 51+15 (P.O.E.)
APPLE WAY STA. 5+00 TO 11+34 (P.O.E.)

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PROFILE: 1"=4'
DRAWING No. LSC-03
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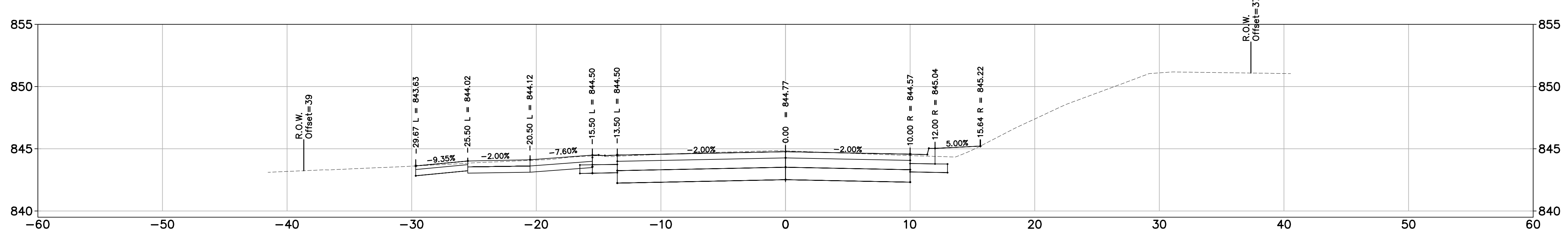
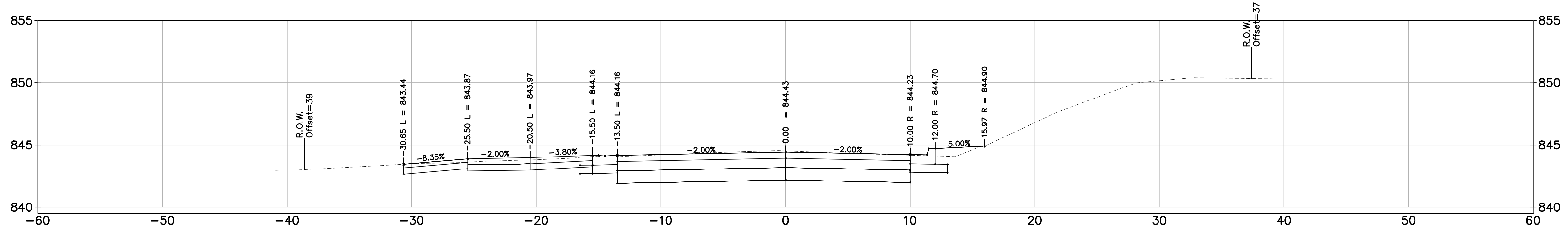
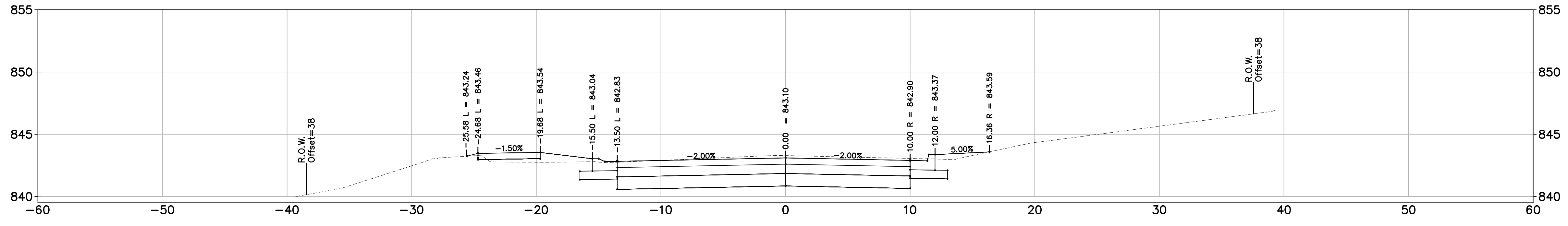
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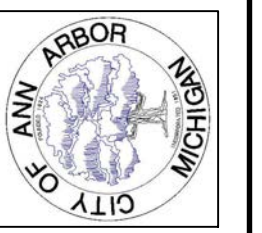
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 GEDES AVENUE IMPROVEMENTS
 ROAD CROSS SECTIONS

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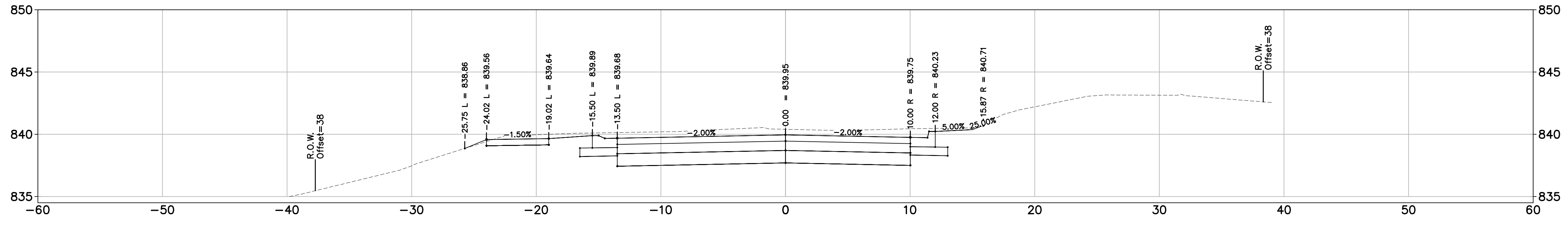
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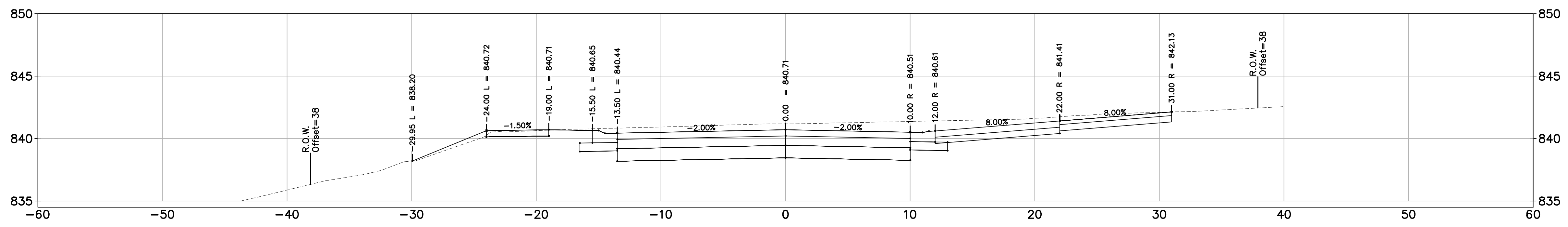


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GEDDES AVENUE IMPROVEMENTS
ROAD CROSS SECTIONS

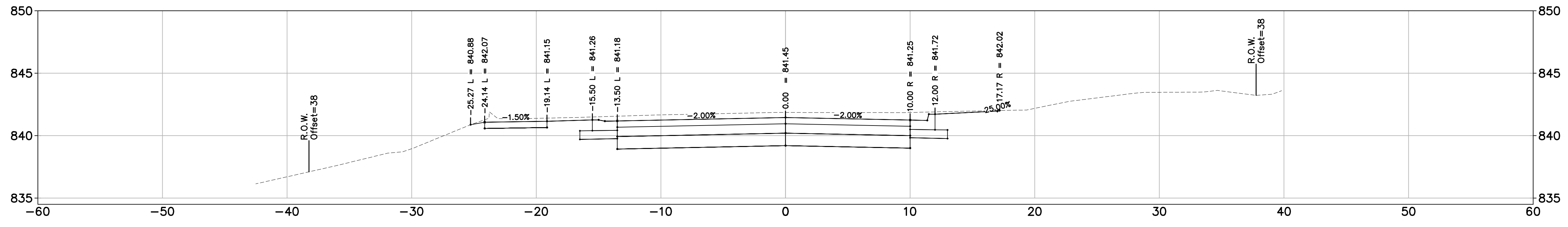
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8+25.00



8+12.05

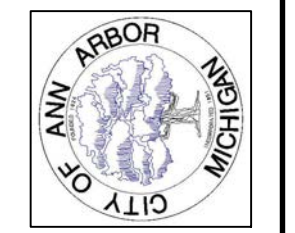


8+00.00



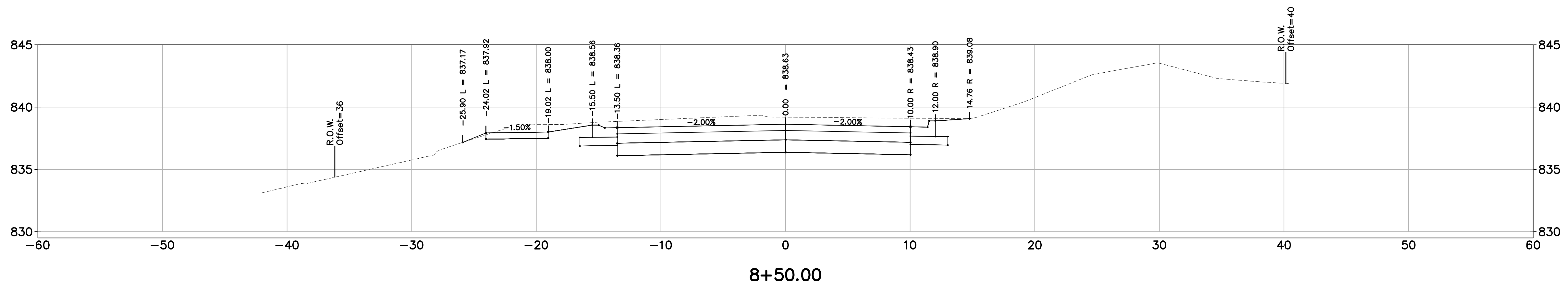
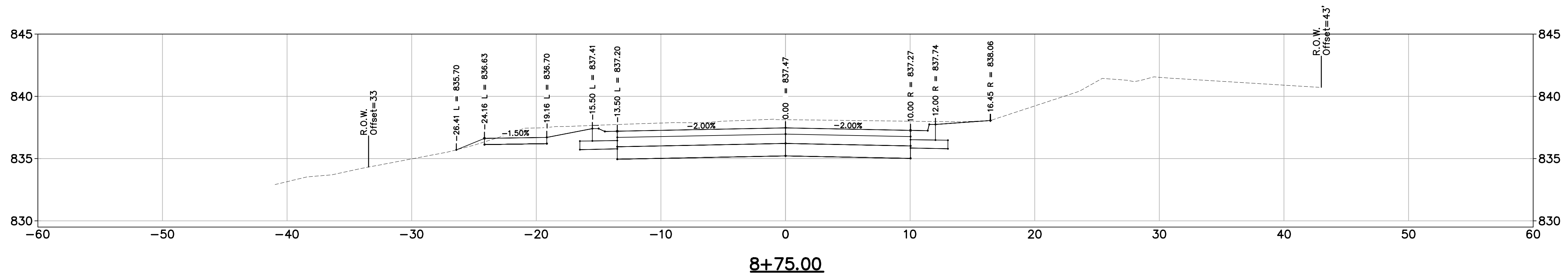
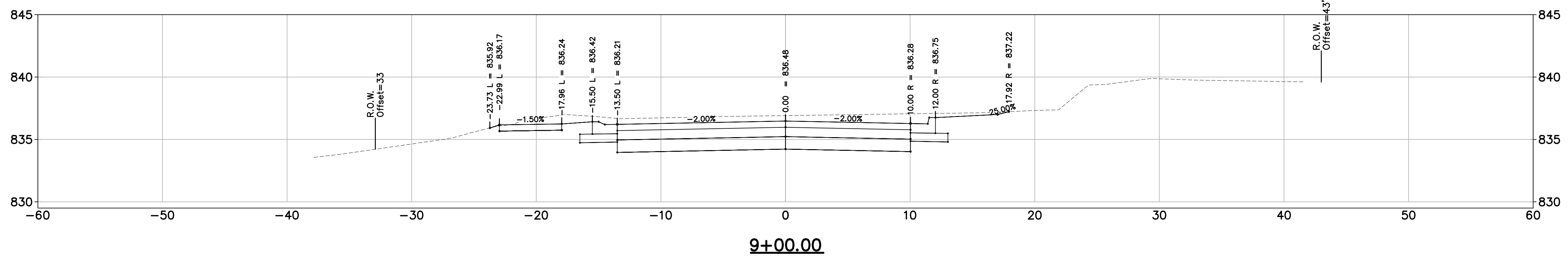
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GEDDES AVENUE IMPROVEMENTS
ROAD CROSS SECTIONS

SCALE 1"=5'
DRAWING No. RDSEC
SHEET No.



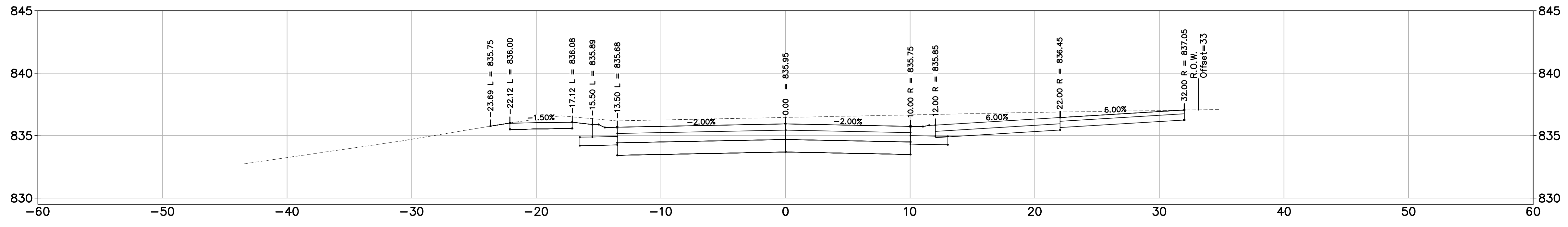
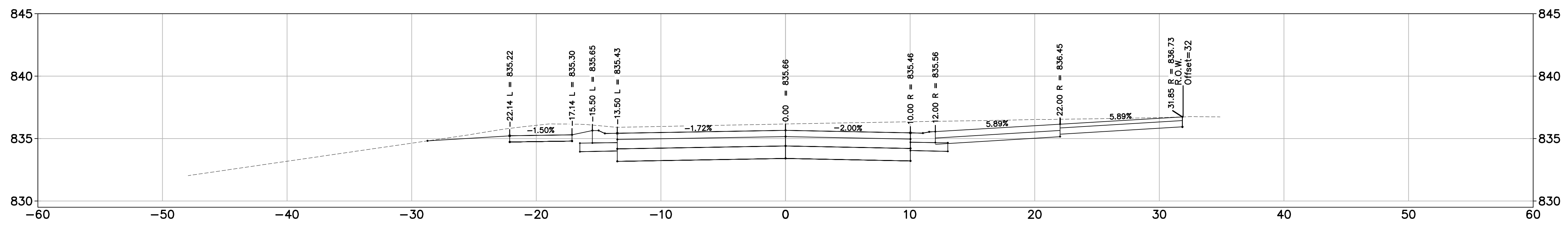
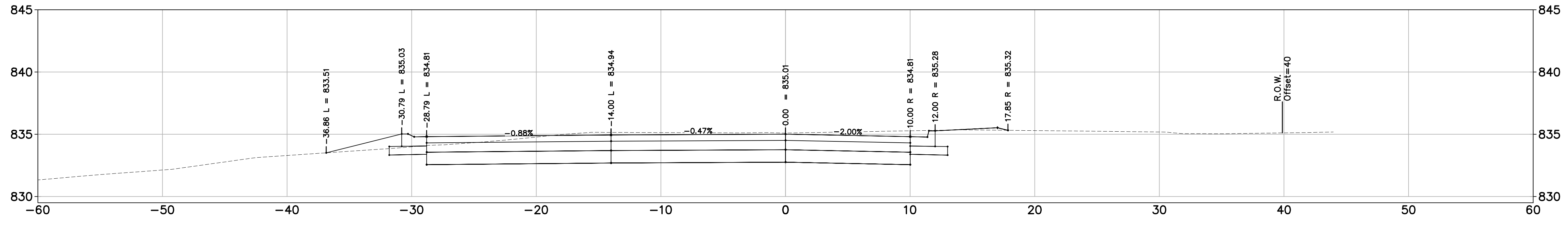
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 ROAD CROSS SECTIONS

SCALE 1"=5'
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ROAD CROSS SECTIONS

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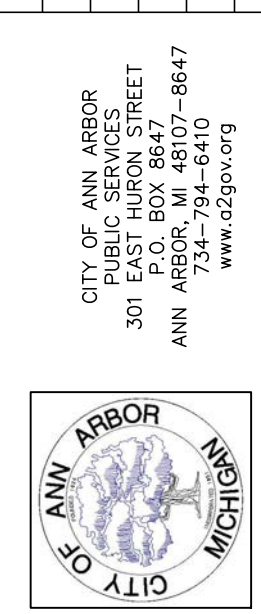
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MAR. 26, 2015
MAR. 13, 2015
JAN. 29, 2015
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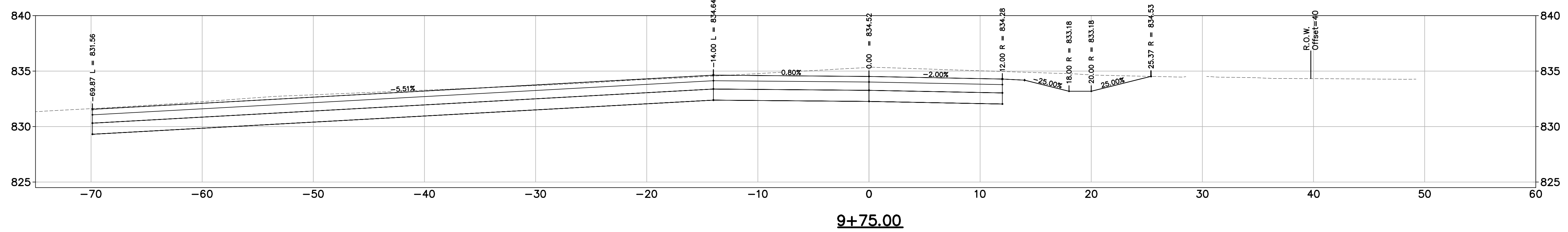
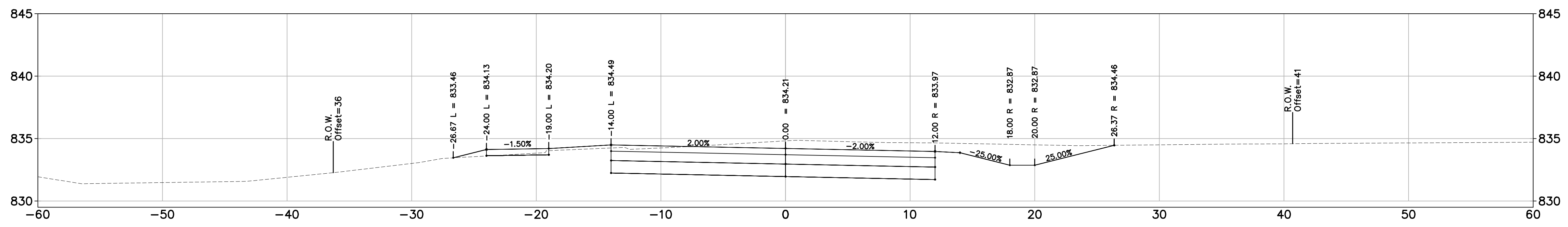
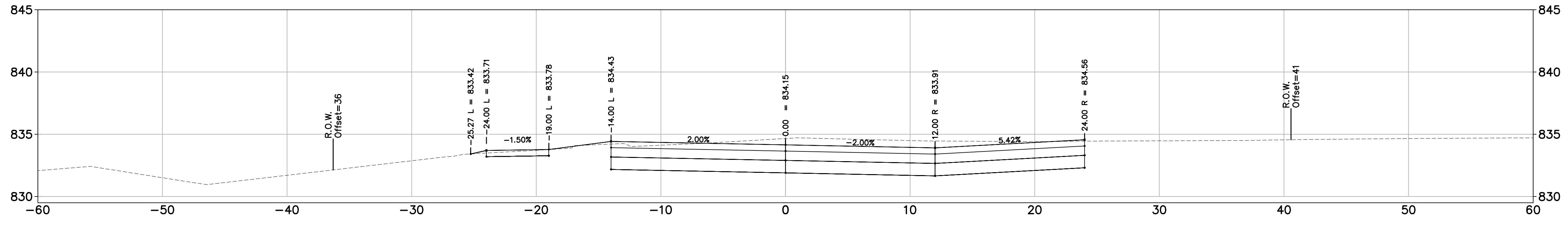
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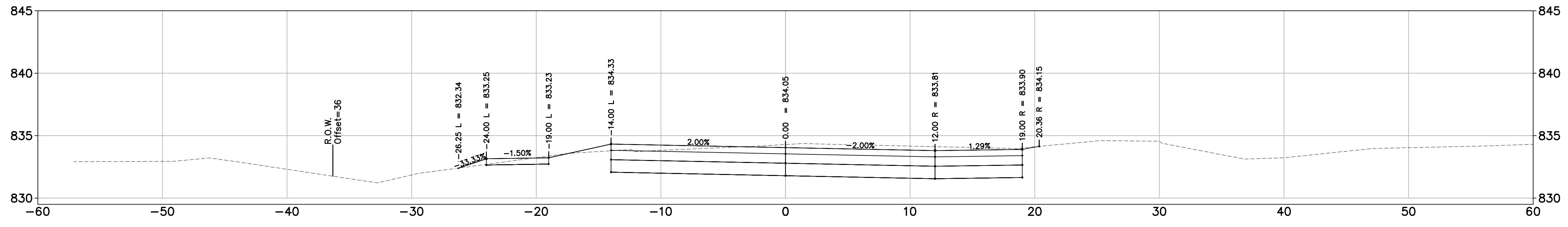
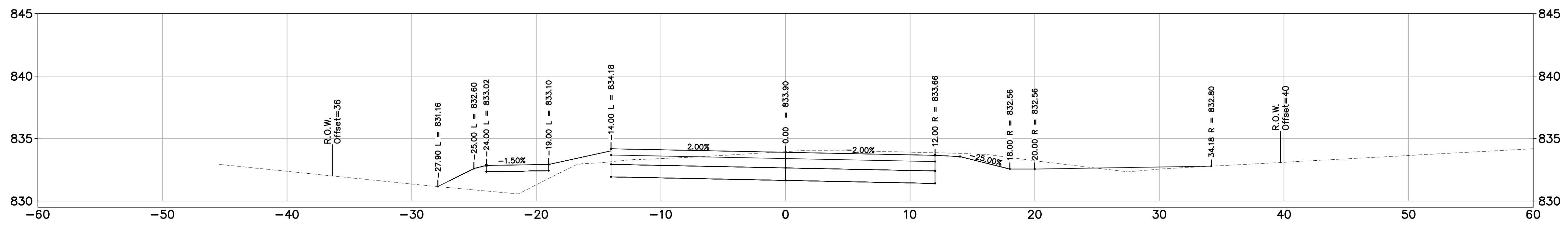
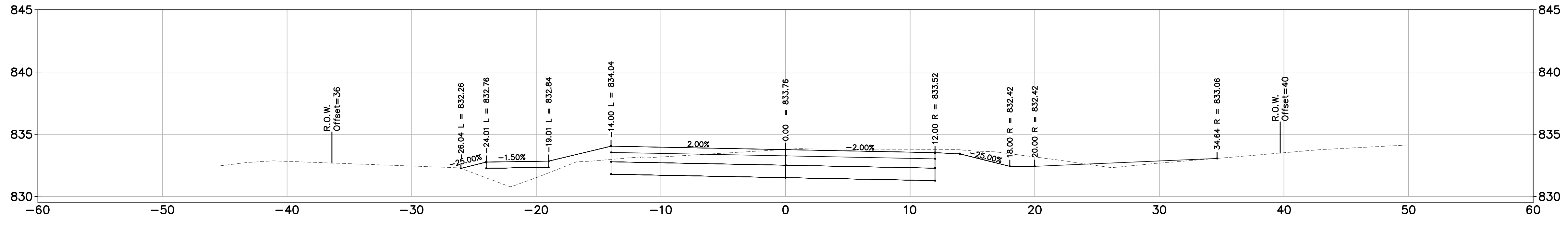


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
ROAD CROSS SECTIONS

SCALE 1"=5'
DRAWING No. RDSEC

SHEET No. 92 OF 187





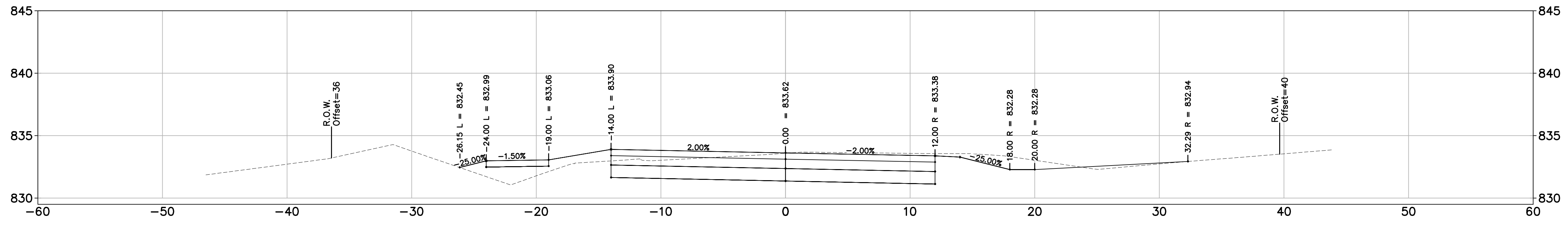
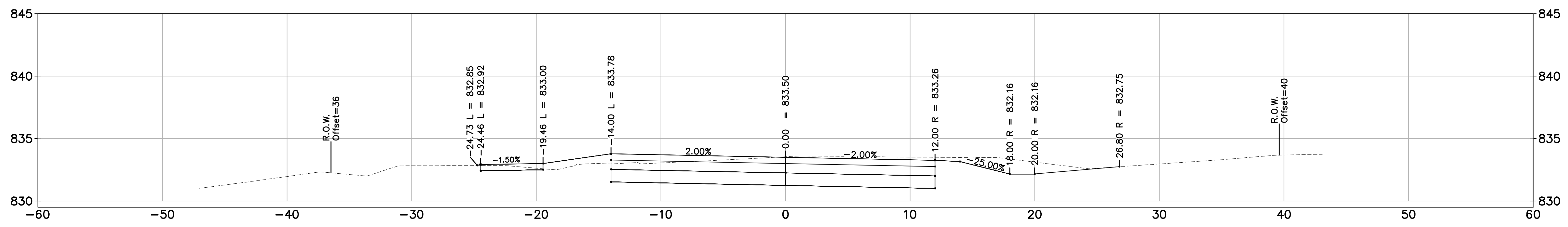
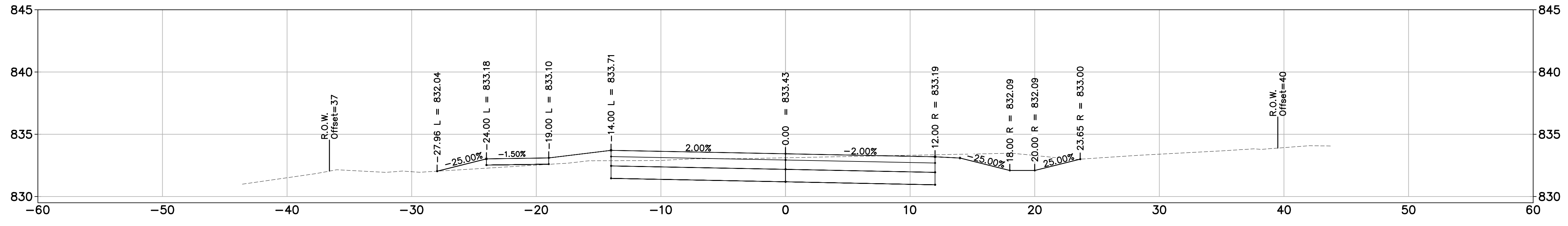
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GEDDES AVENUE IMPROVEMENTS
ROAD CROSS SECTIONS

SCALE 1"=5'
DRAWING No. RDSEC



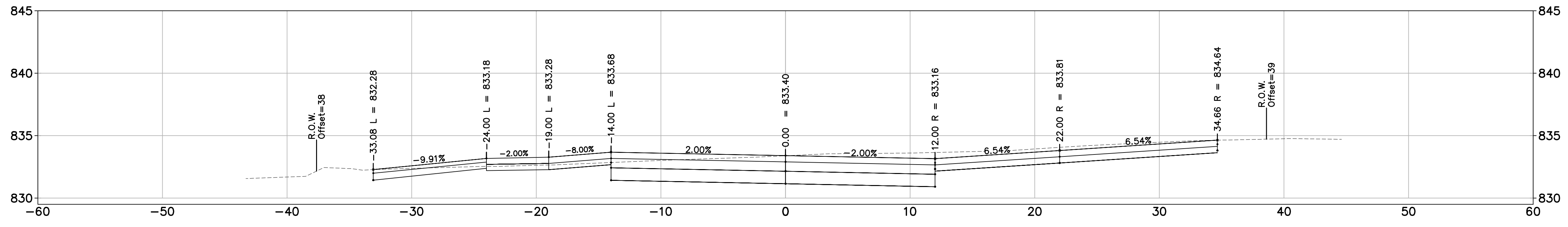
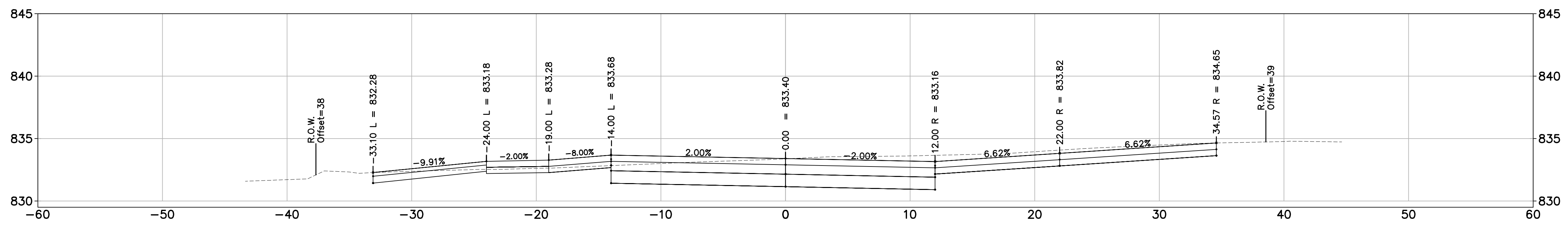
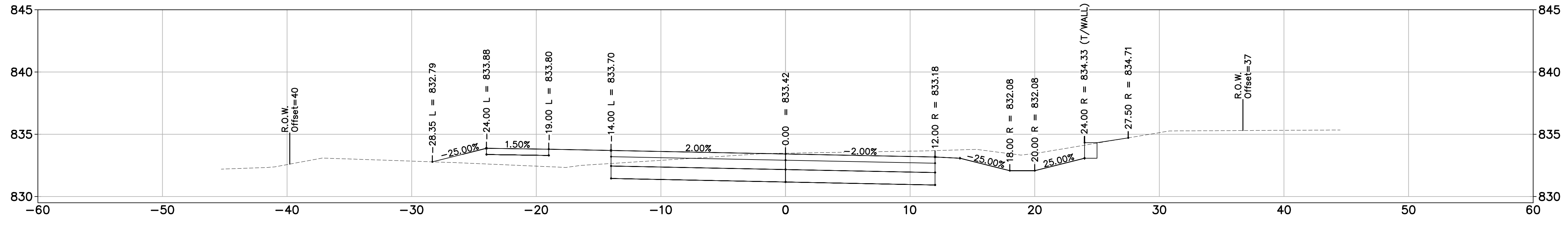
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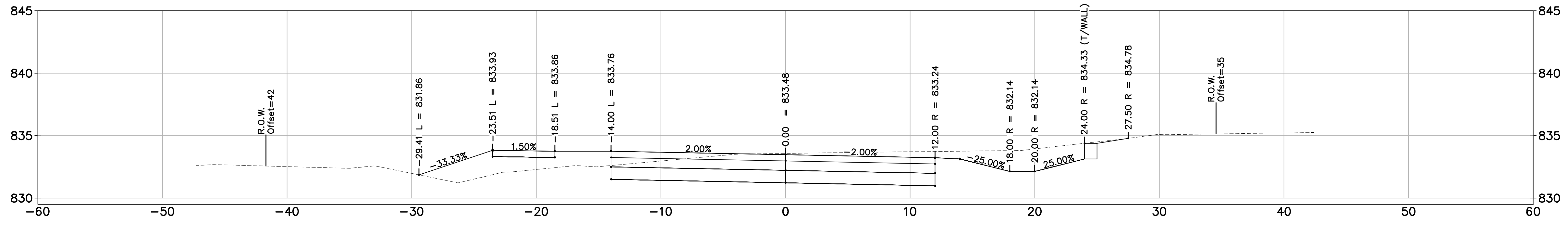
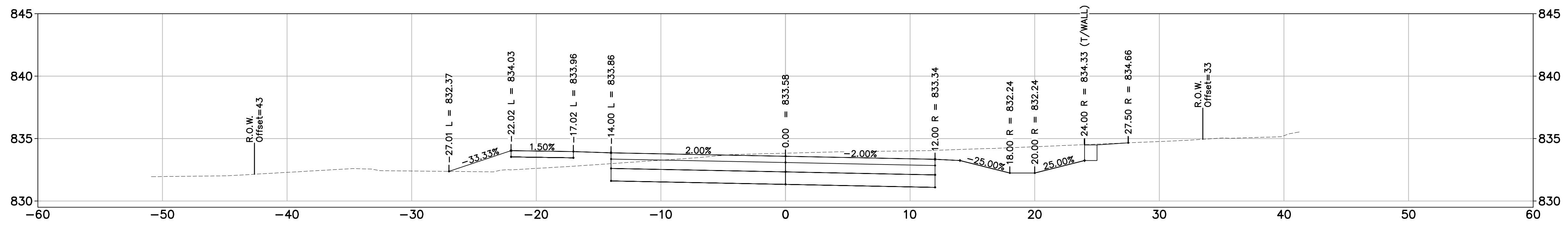
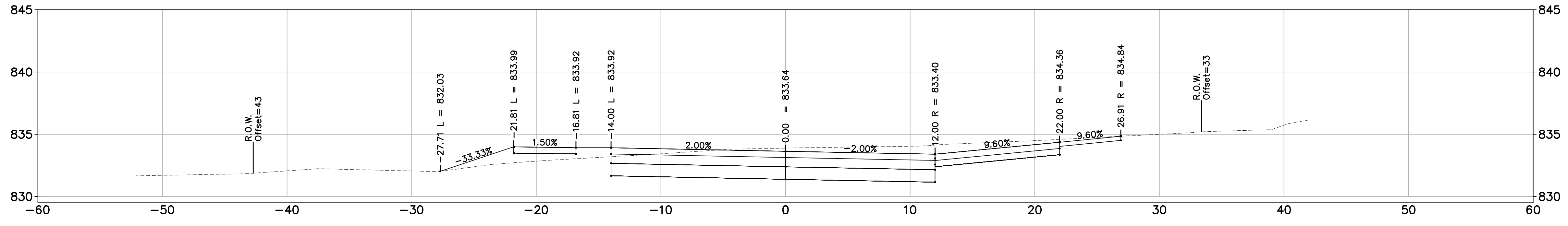
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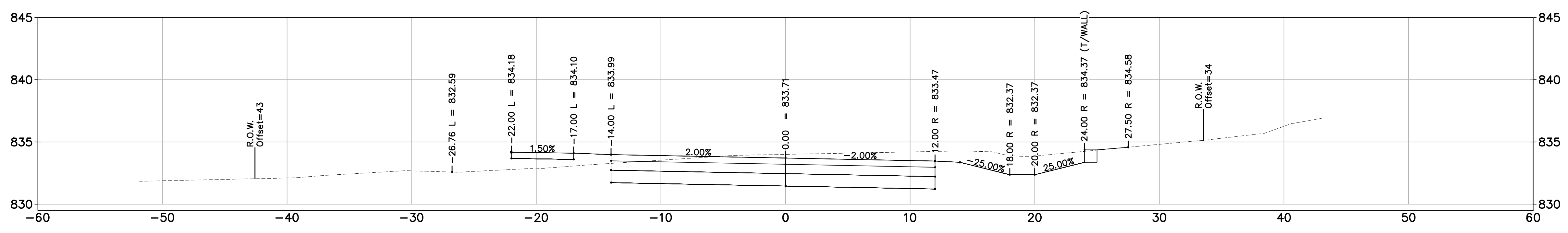
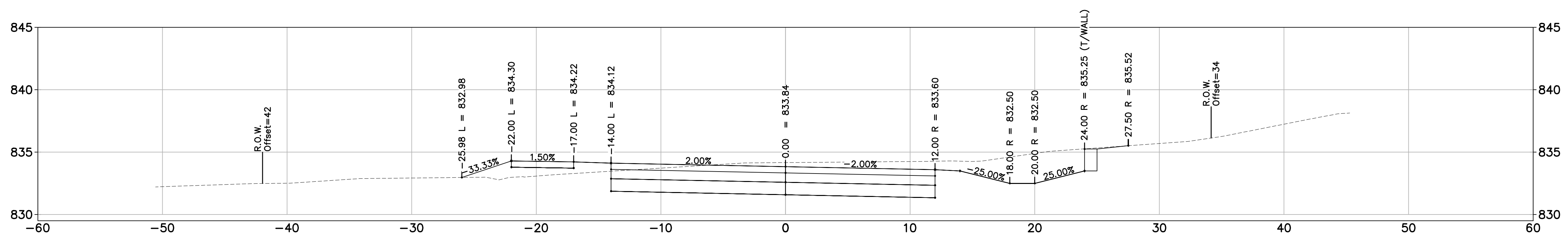
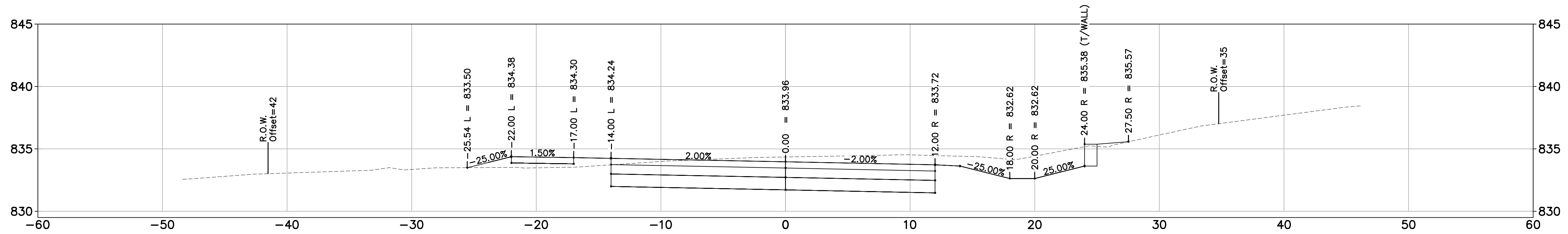
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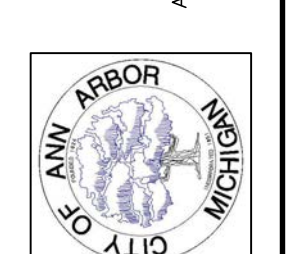
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GEDDES AVENUE IMPROVEMENTS
ROAD CROSS SECTIONS

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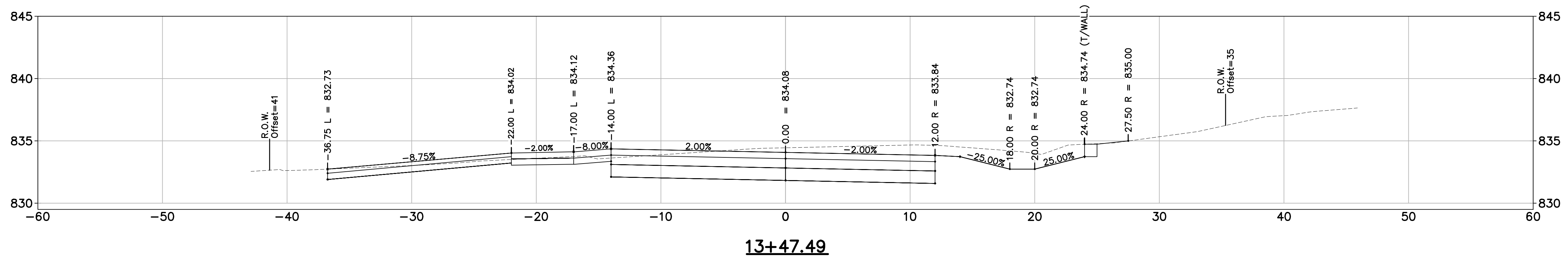
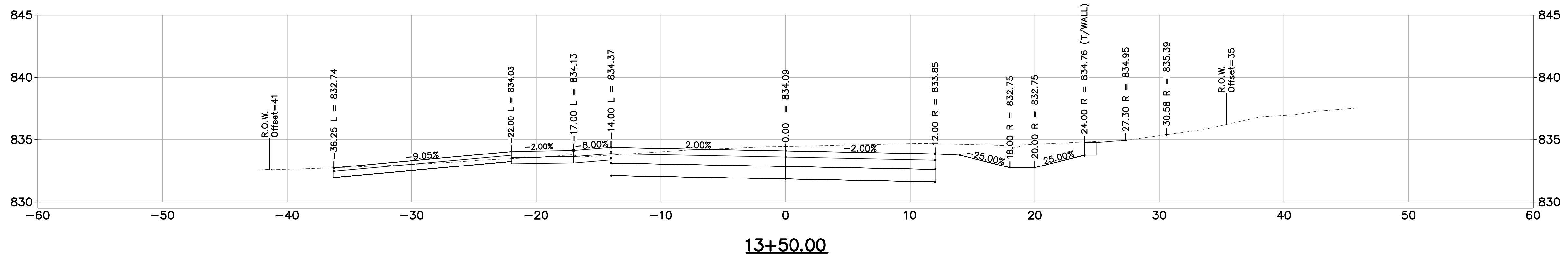
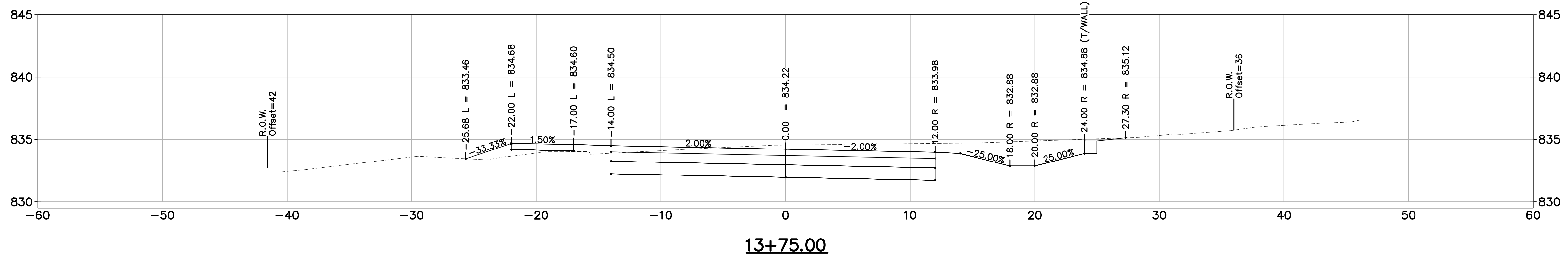
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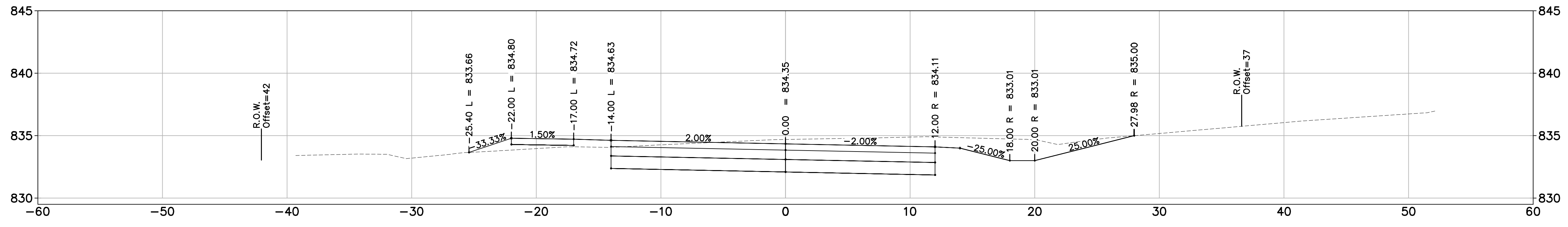
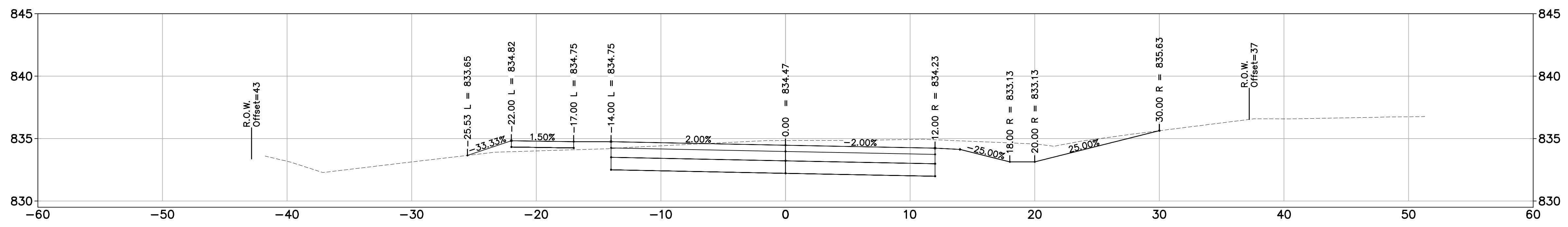
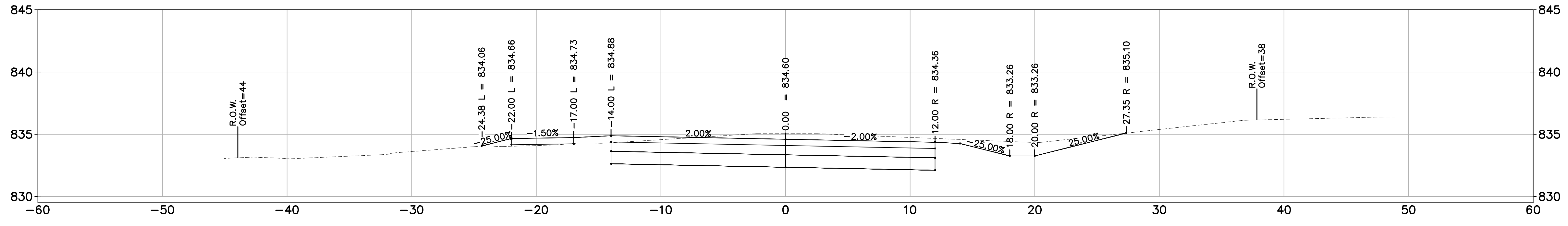
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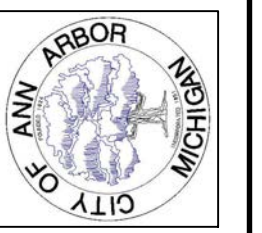
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 ROAD CROSS SECTIONS

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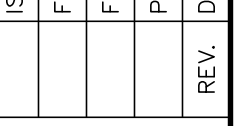
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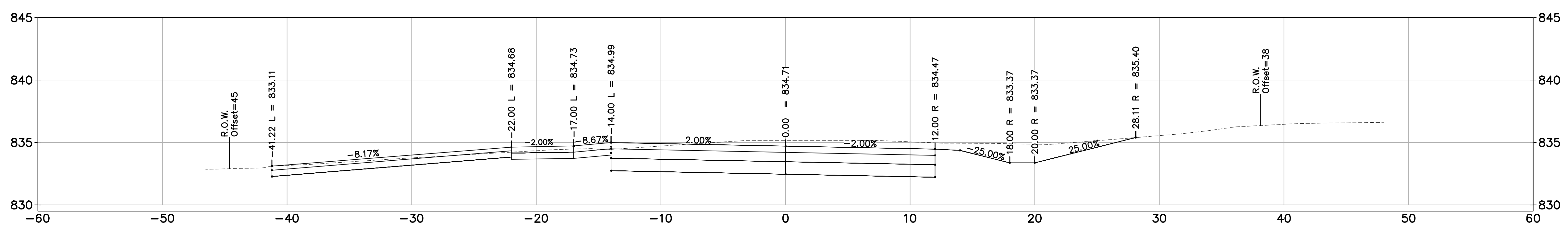
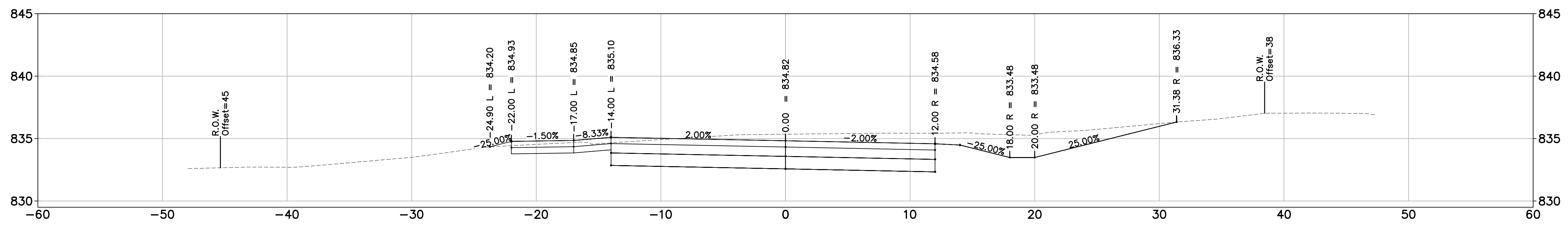
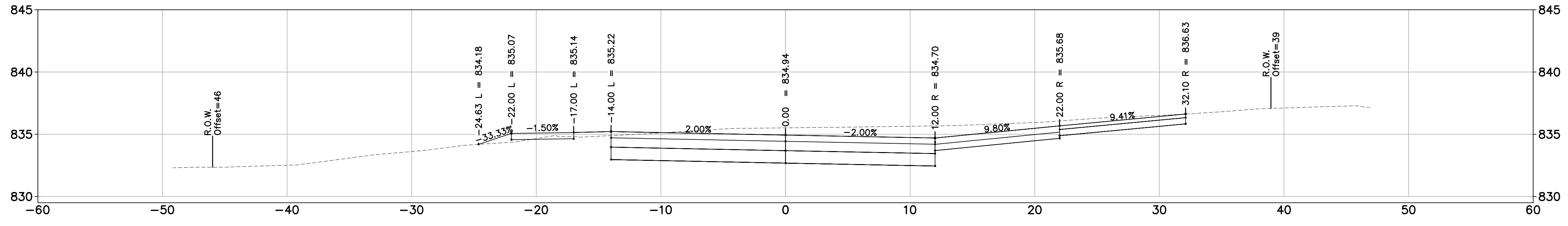
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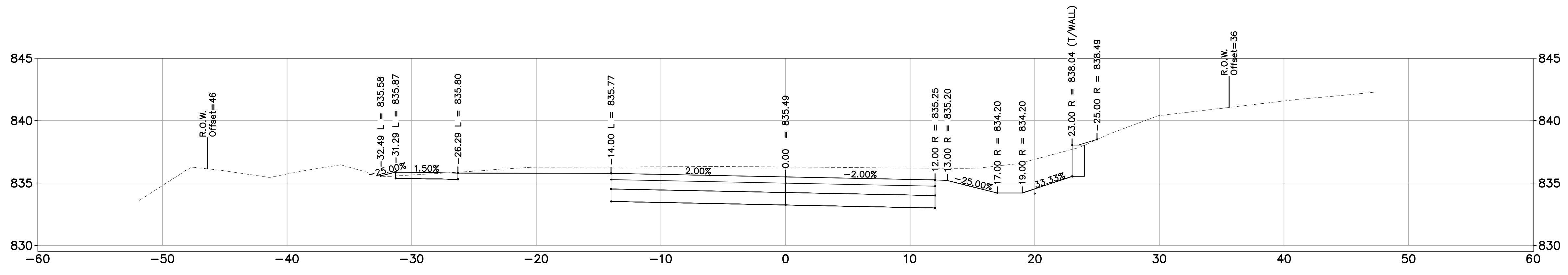


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GEDDES AVENUE IMPROVEMENTS
ROAD CROSS SECTIONS

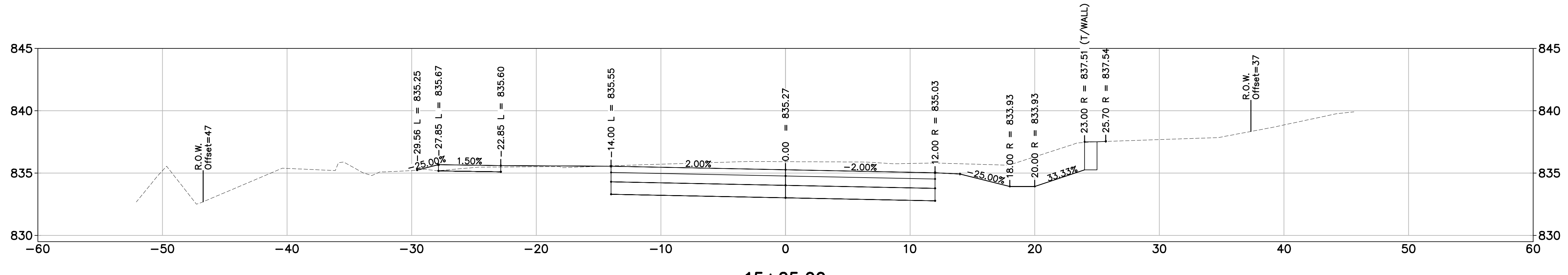
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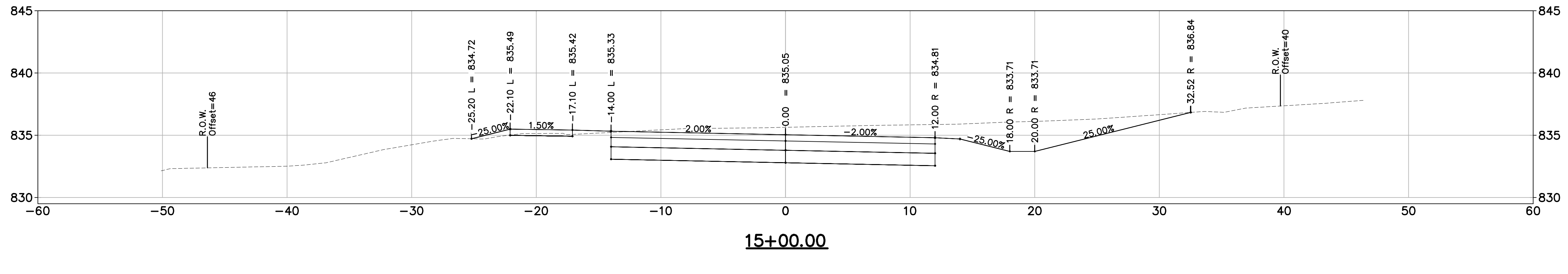




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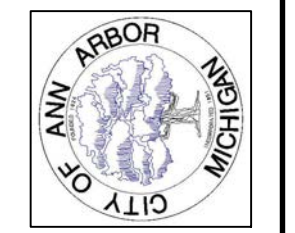


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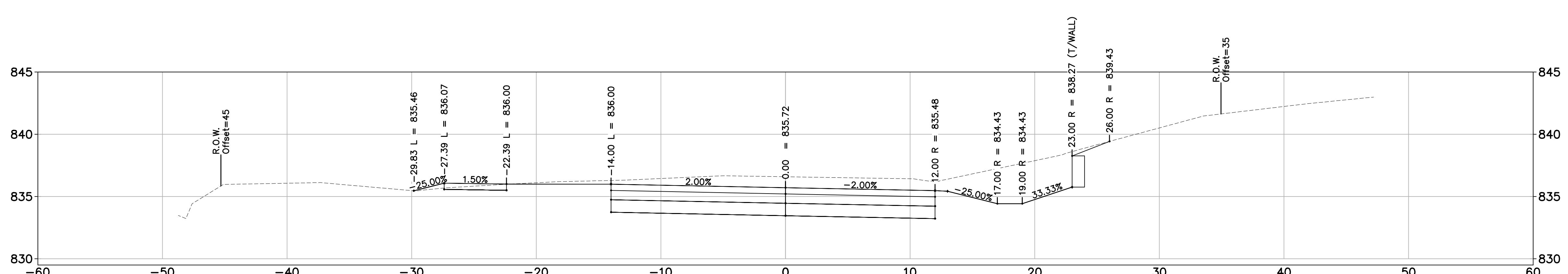
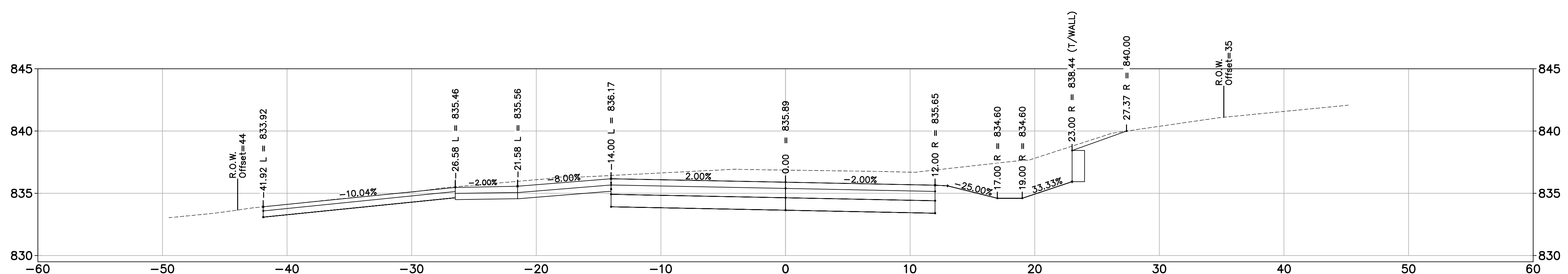
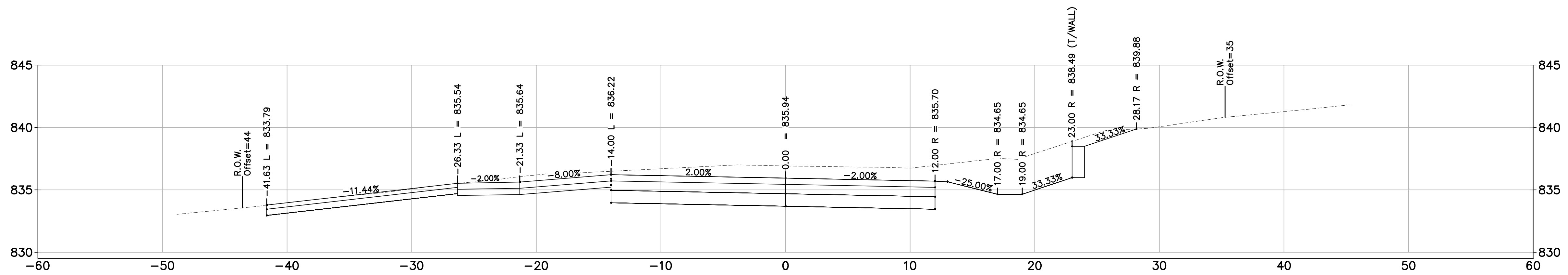
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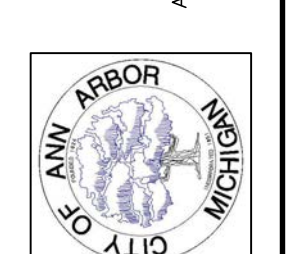
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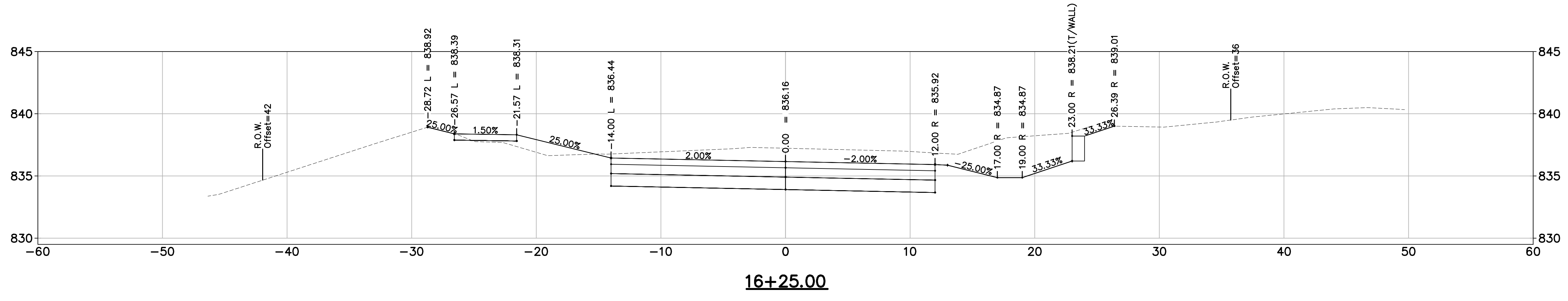
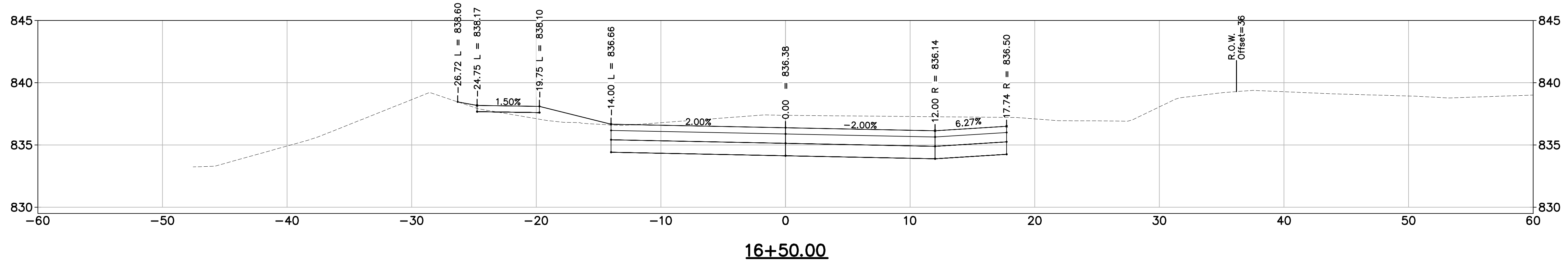
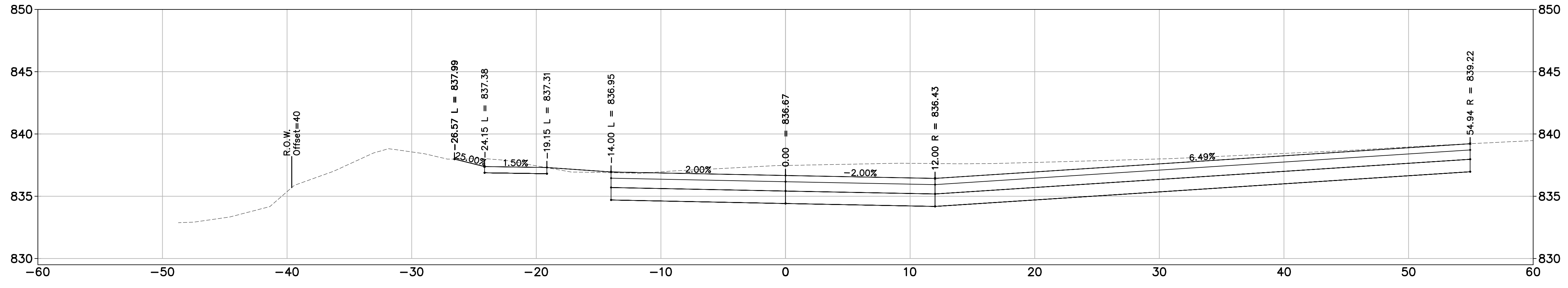
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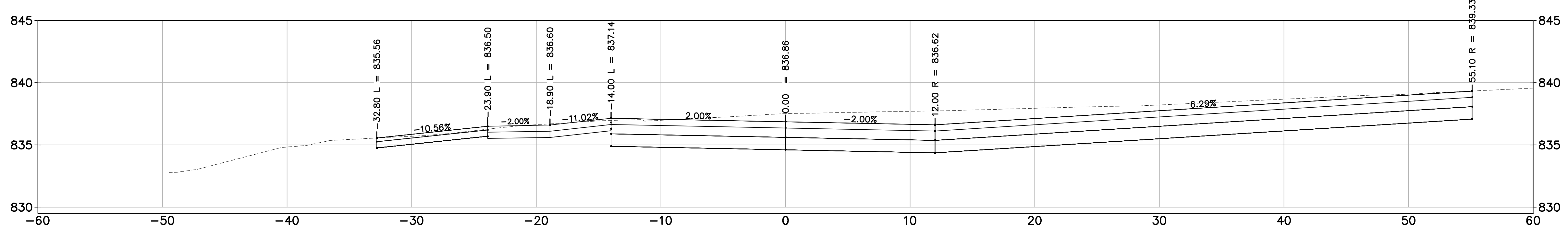
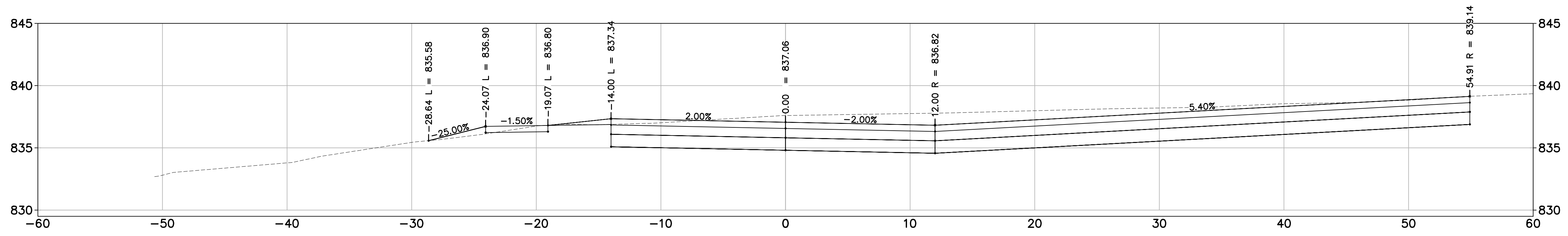
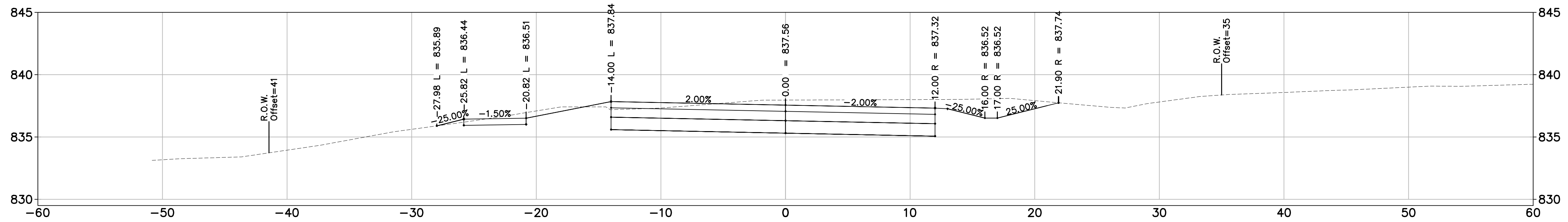
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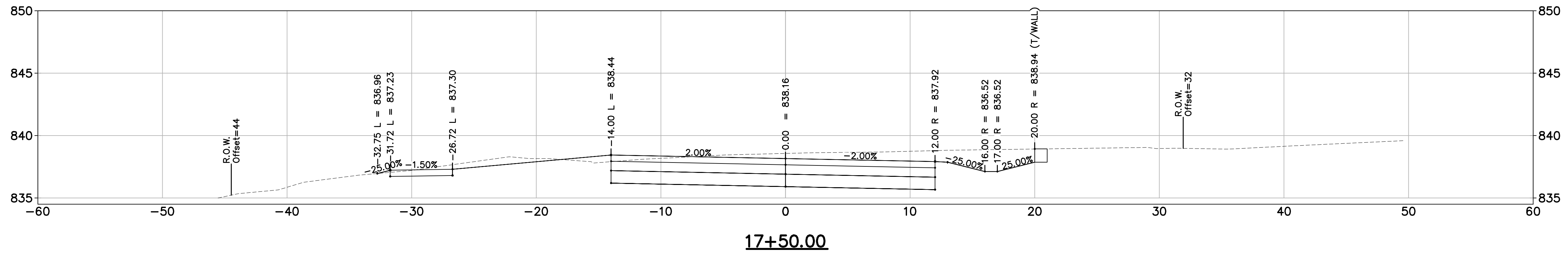
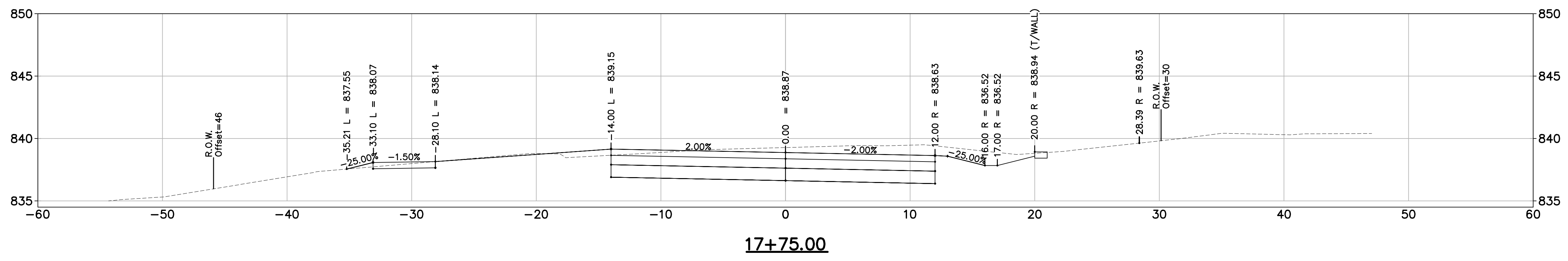
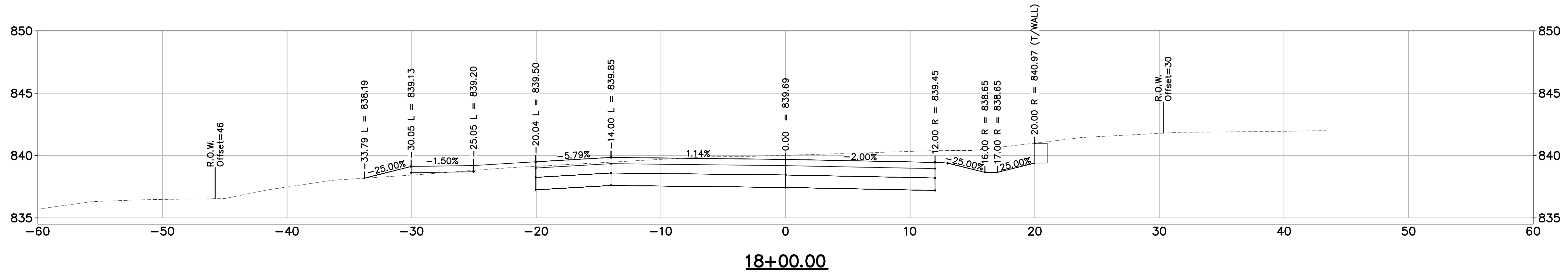


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SCALE	
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CEH	CEH
ALP/MN	ALP/MN
APR. 22, 2015	APR. 22, 2015

CEH	CEH
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MAR. 26, 2015	MAR. 26, 2015

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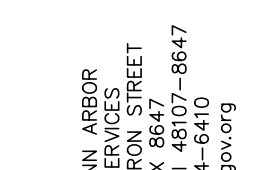
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APR. 22, 2015	APR. 22, 2015

ISSUED FOR BIDS	DESCRIPTION
FINAL PLAN SUBMITTAL	PRELIMINARY PLAN SUBMITTAL

FINAL REVIEW SUBMITTAL	DESCRIPTION
PRELIMINARY PLAN SUBMITTAL	PRELIMINARY PLAN SUBMITTAL

REV.	DESCRIPTION

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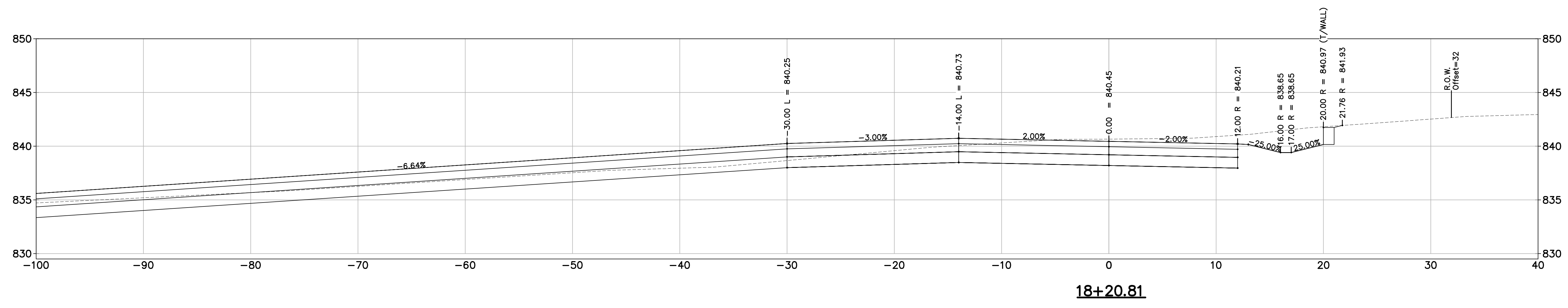
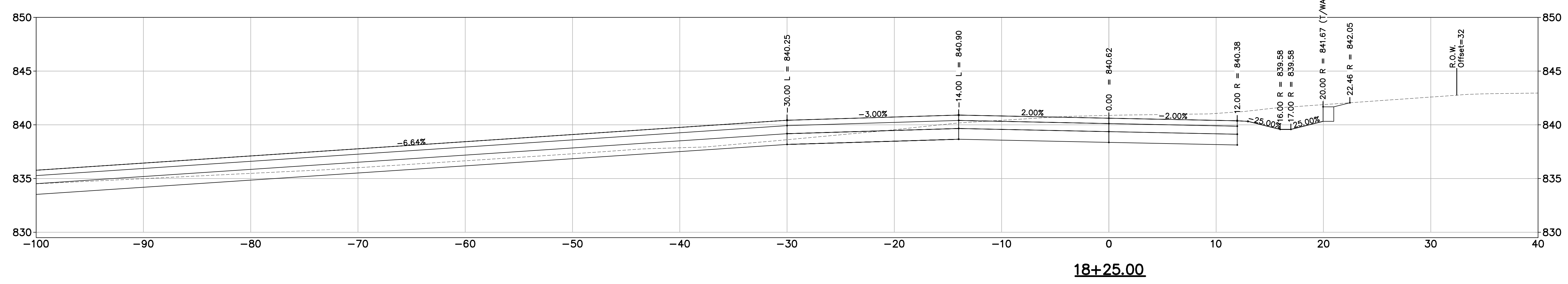
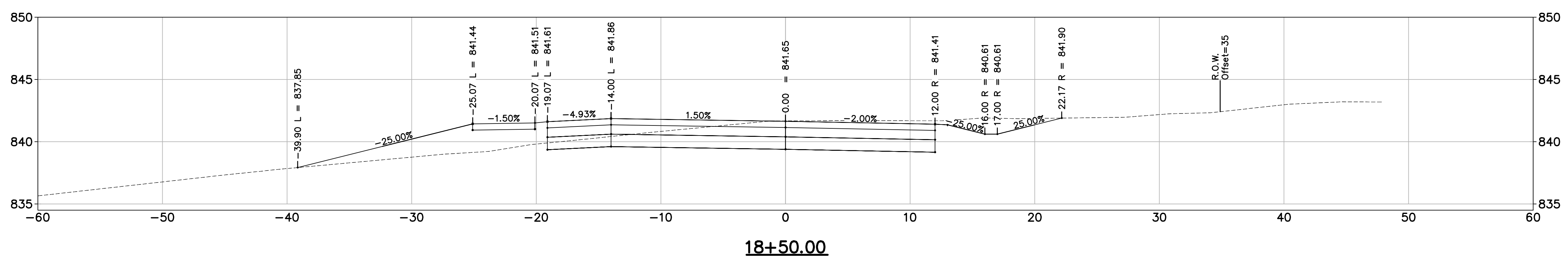
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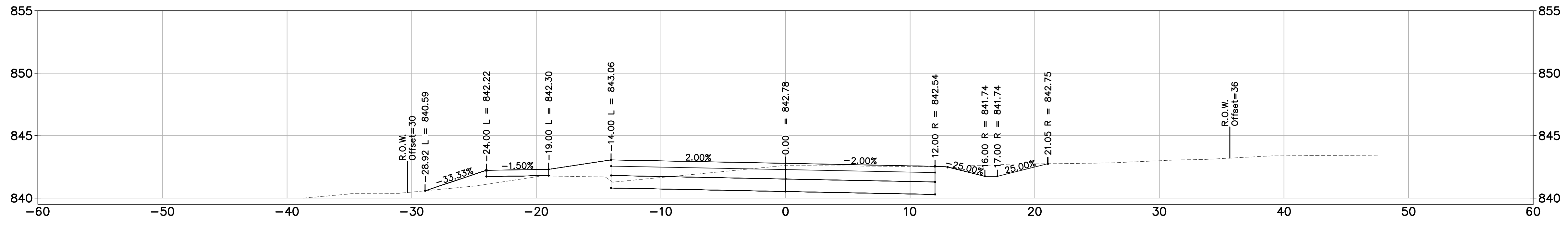
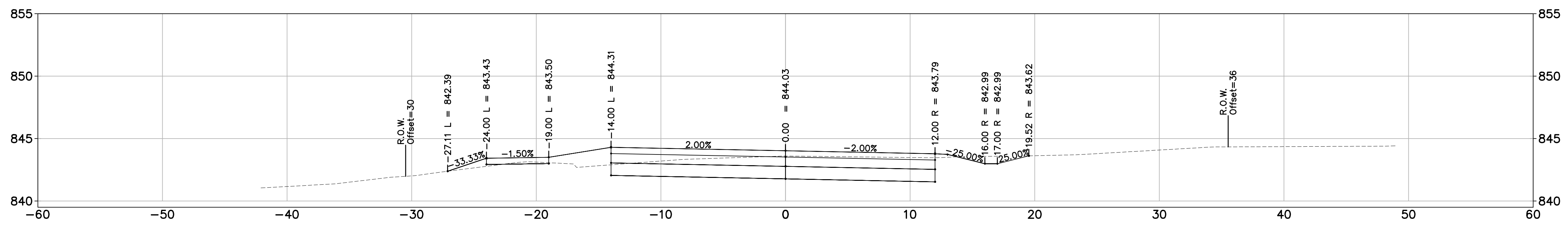
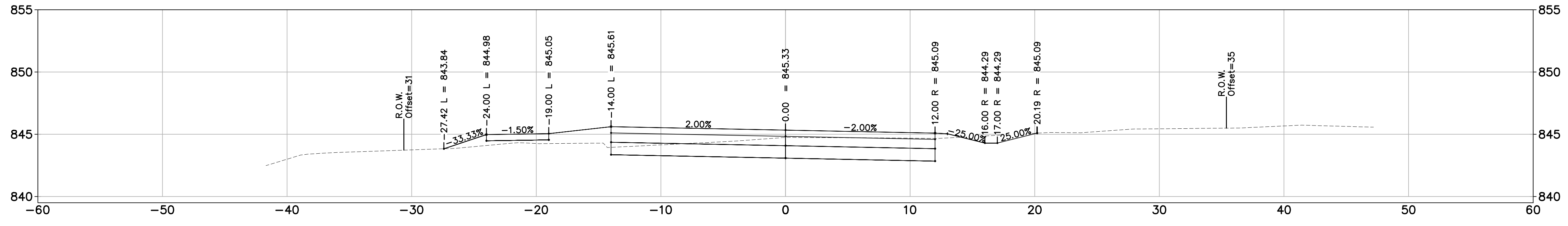
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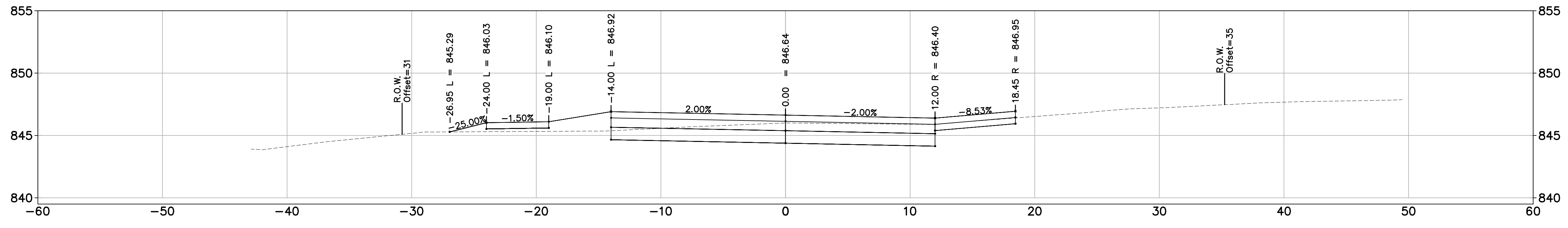
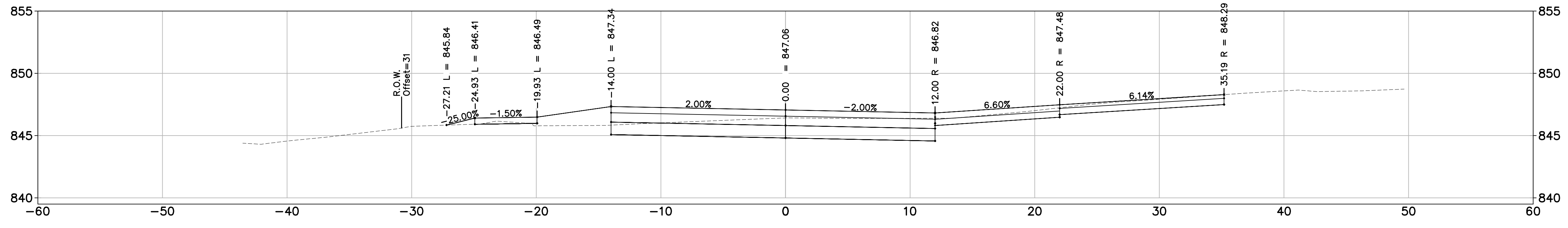
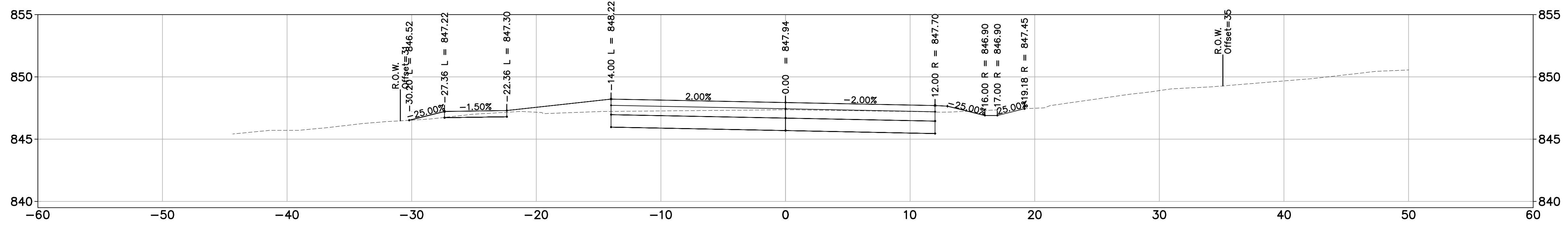
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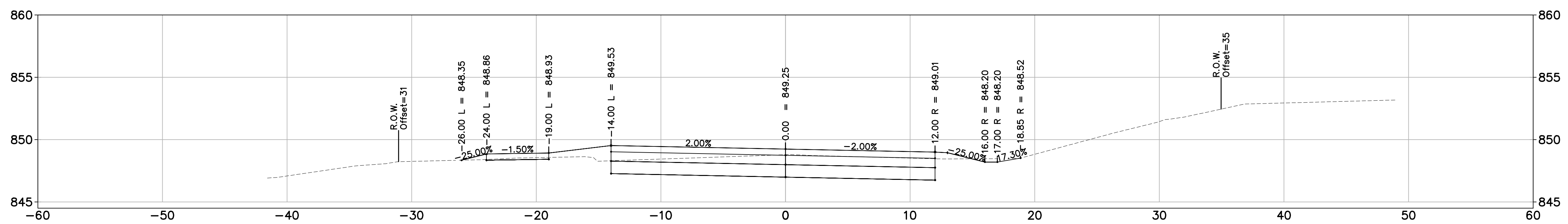
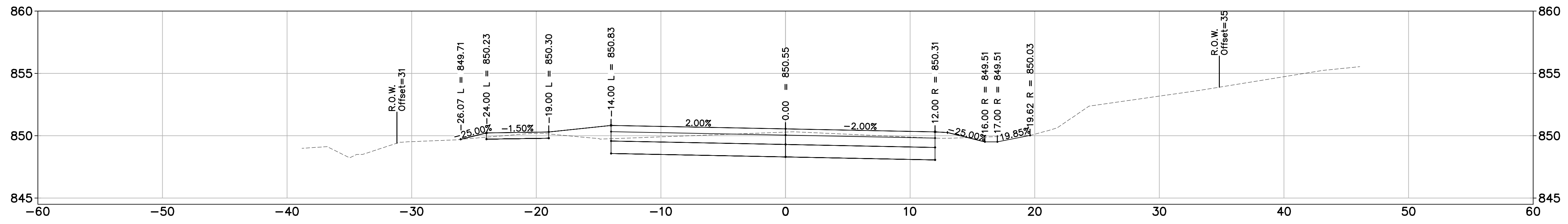
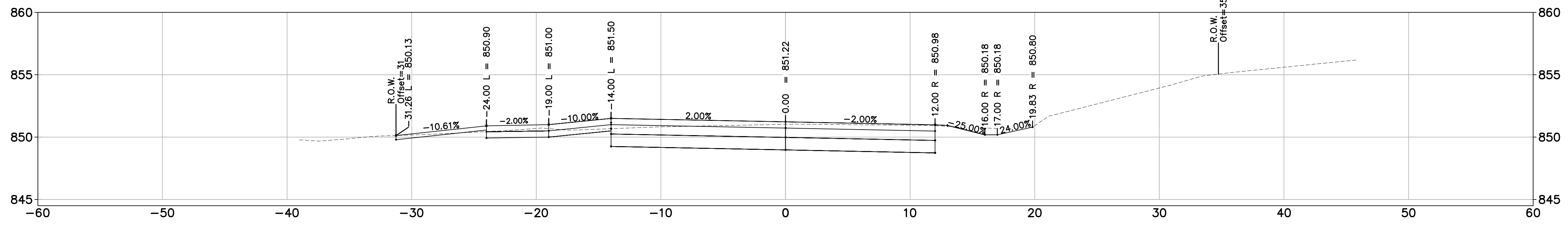


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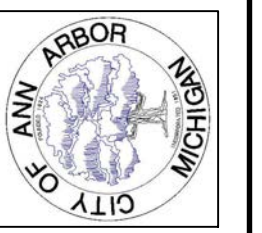


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ROAD CROSS SECTIONS



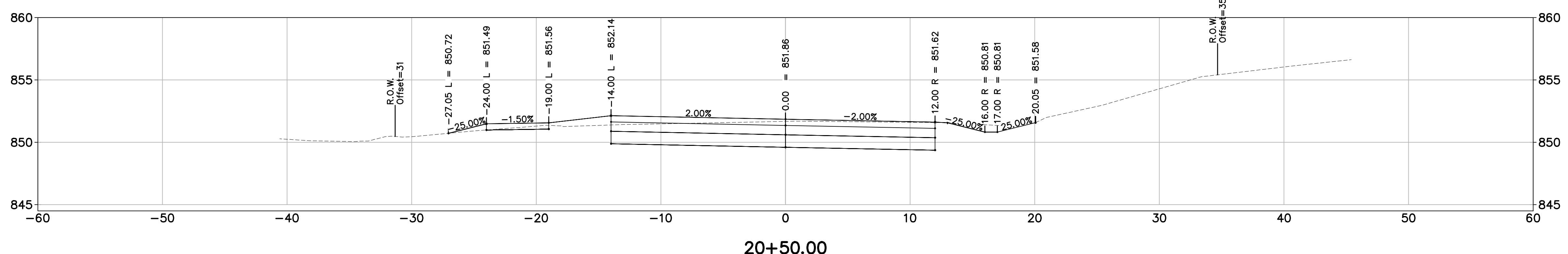
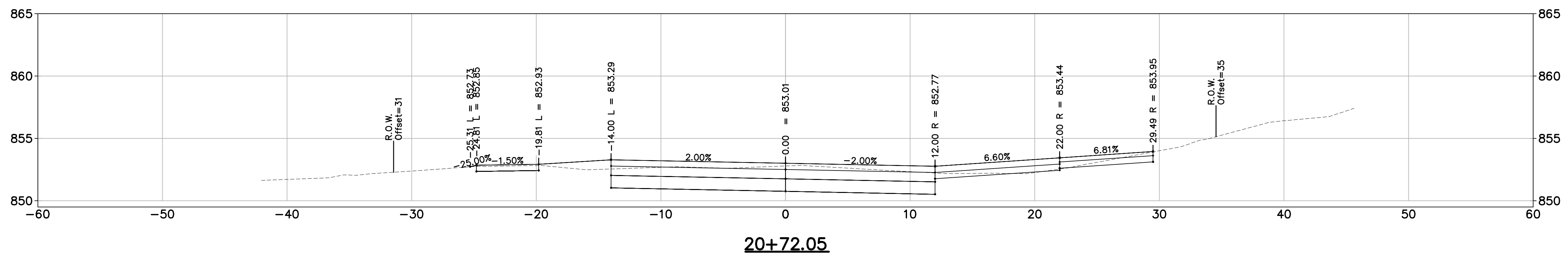
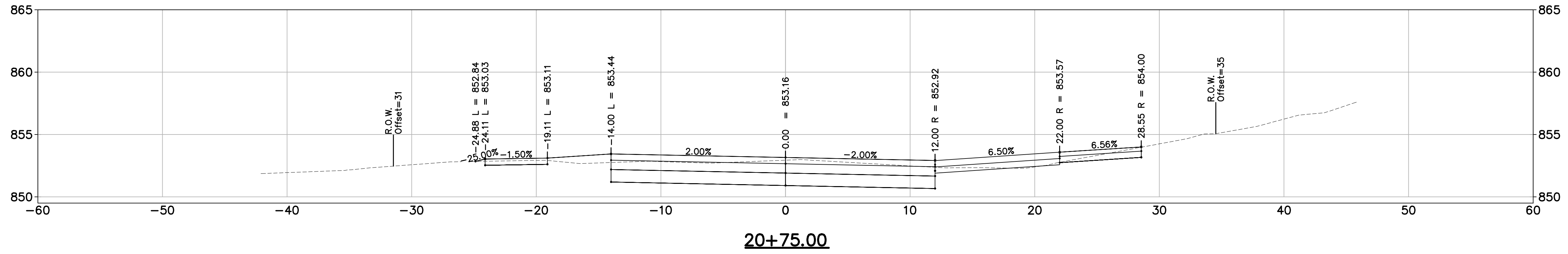
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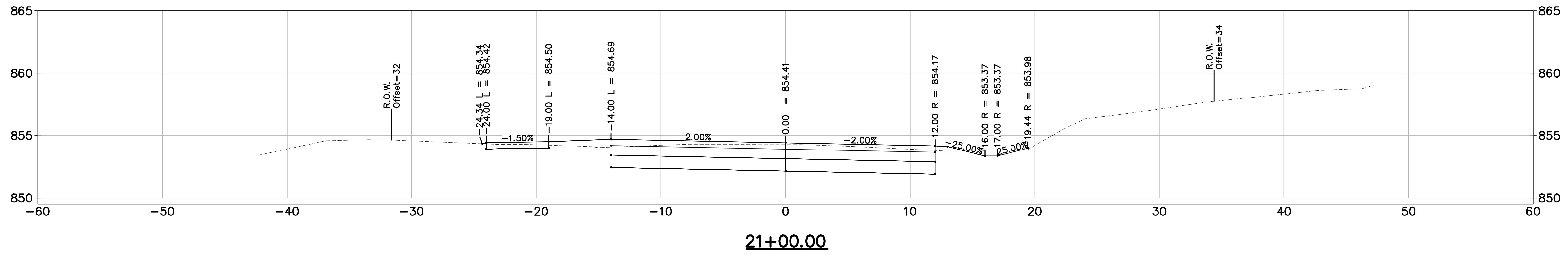
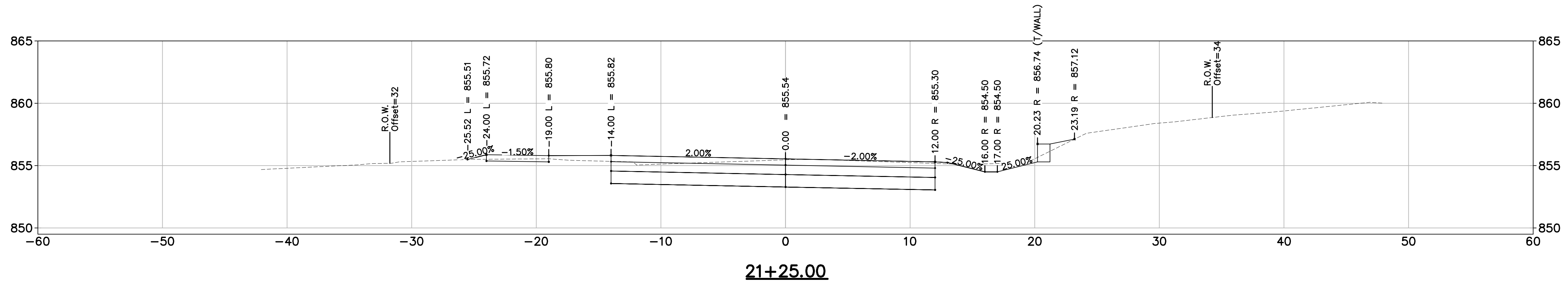
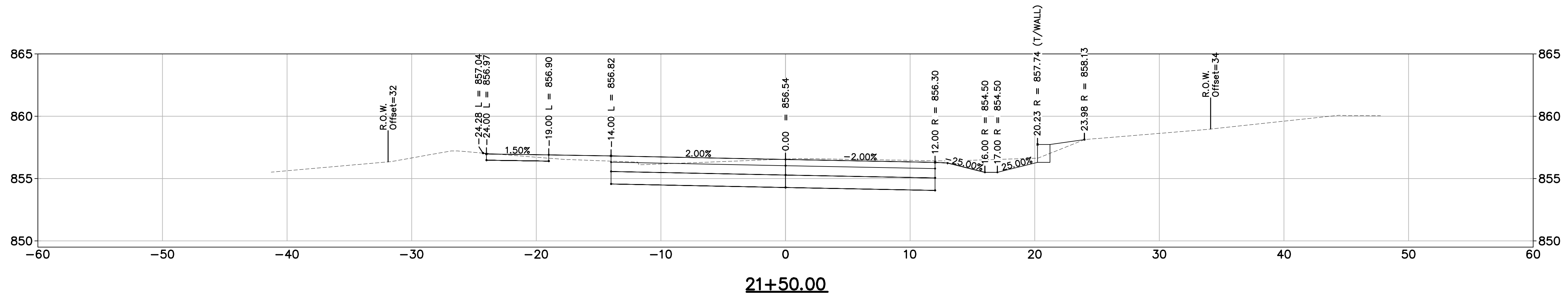
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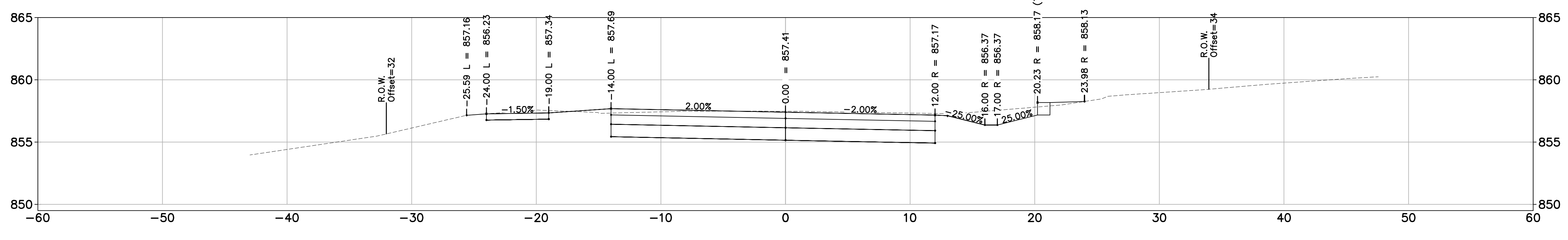
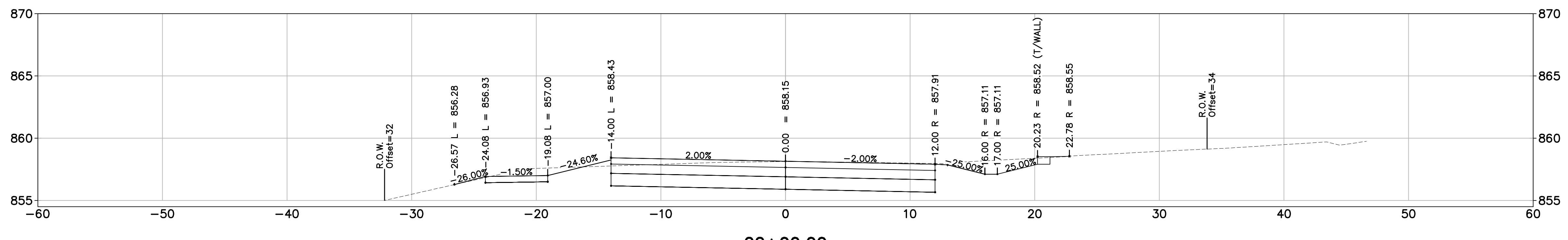
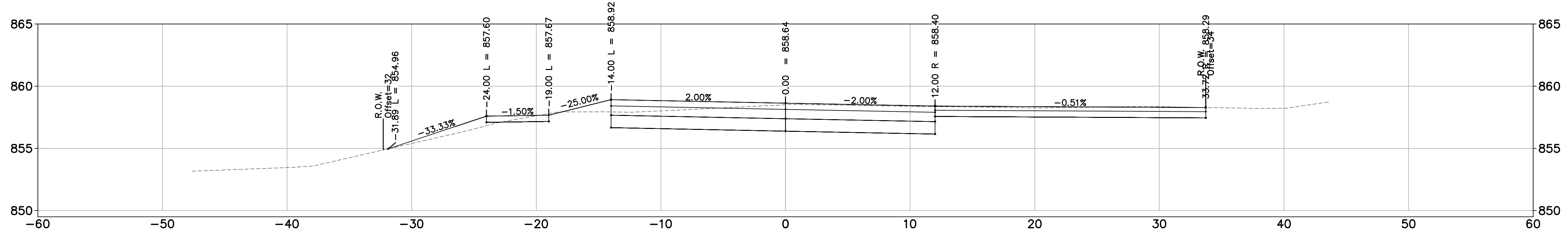
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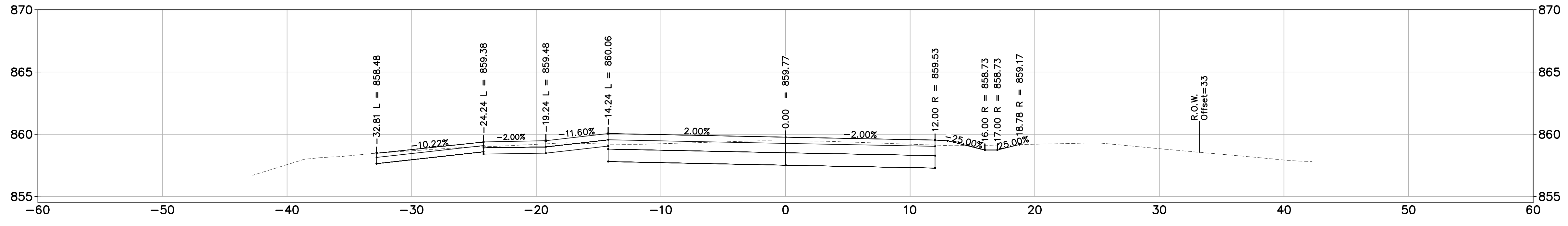


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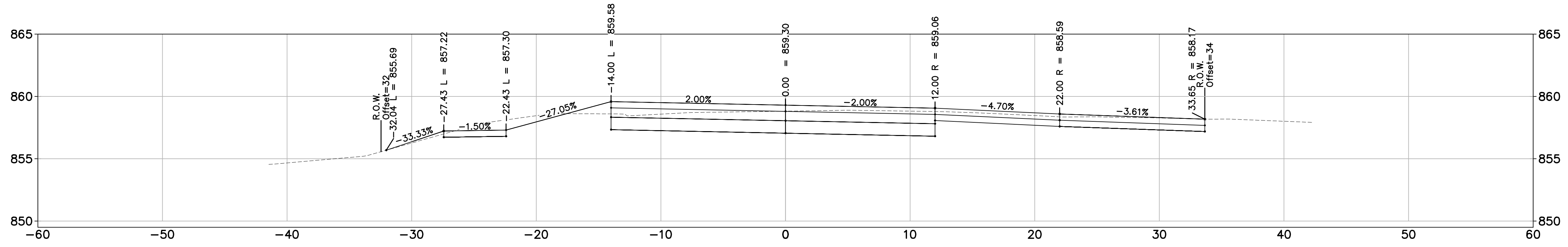
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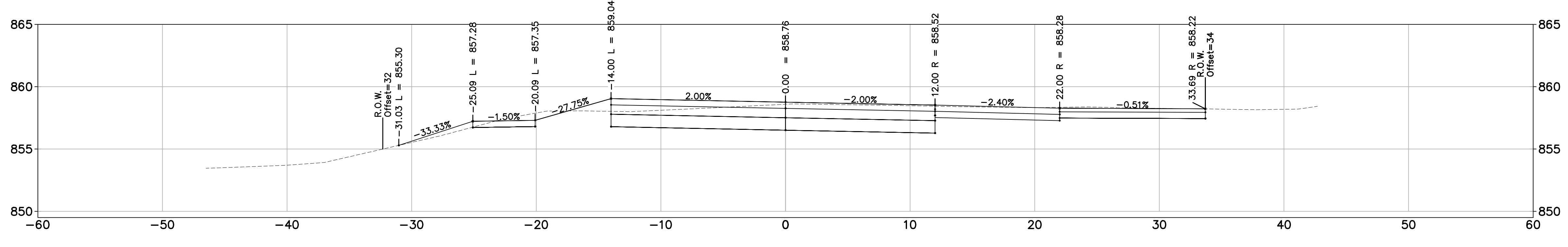
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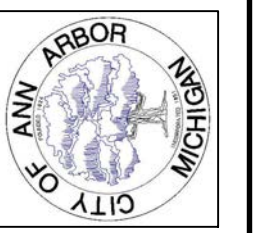


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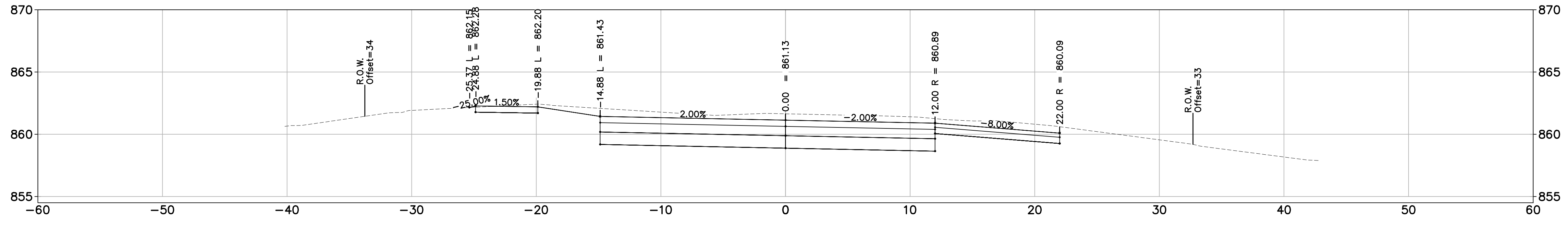
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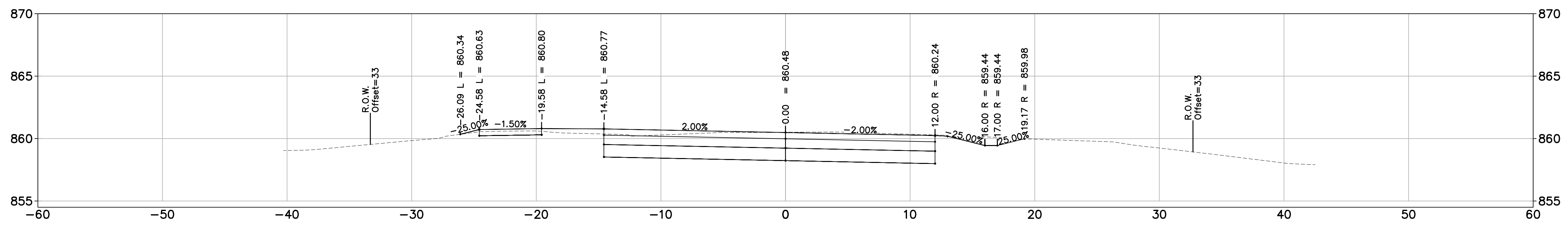


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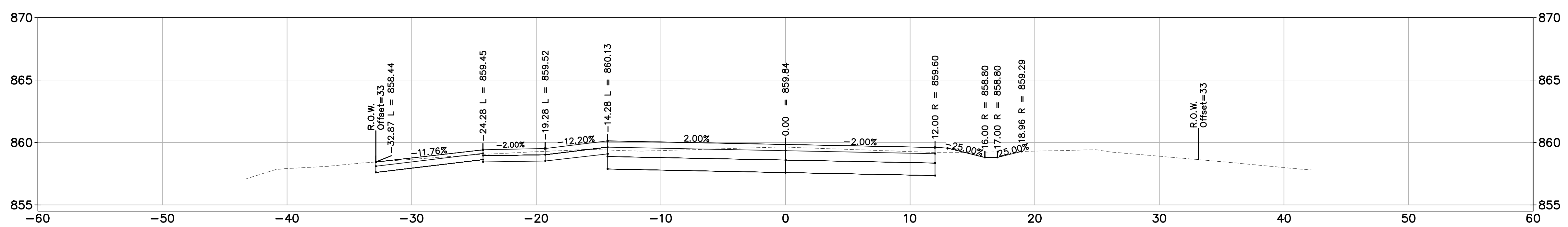
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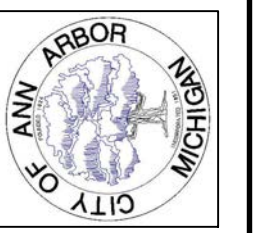


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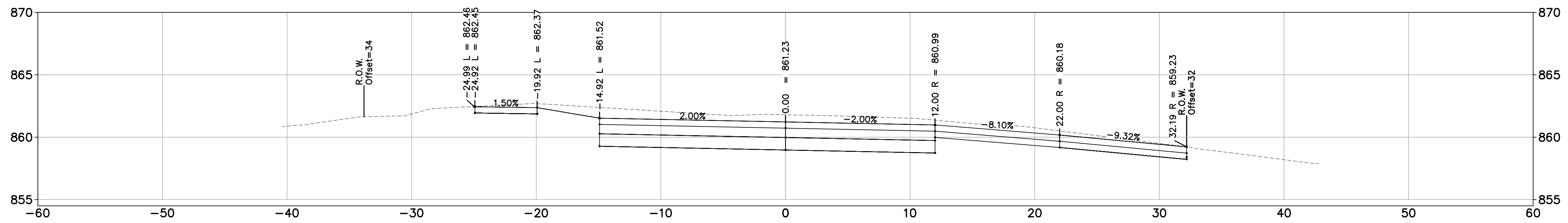
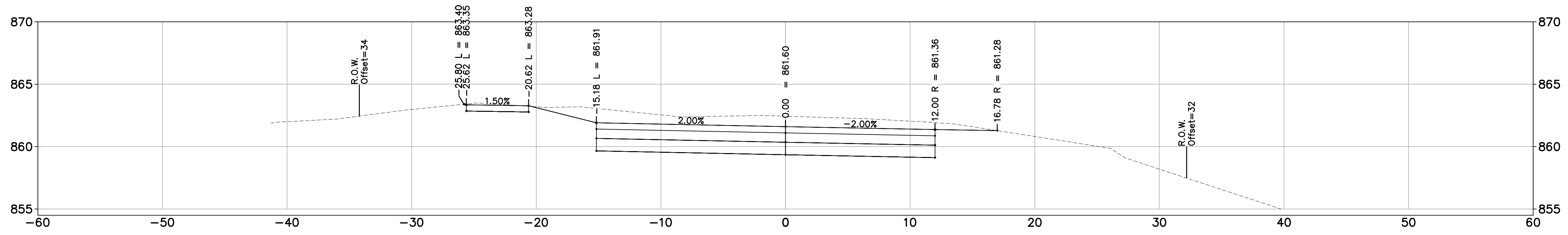
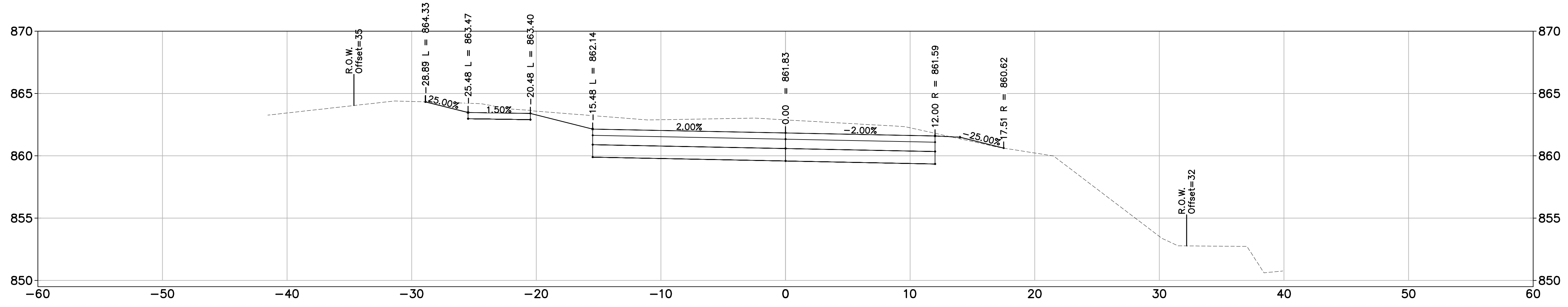
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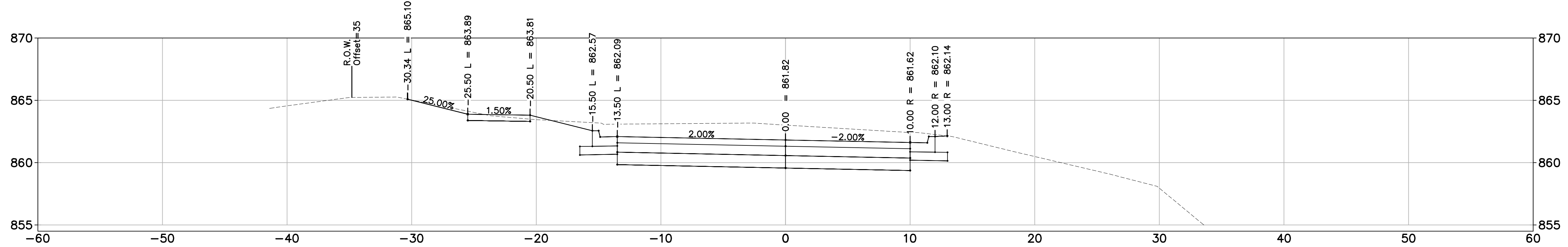
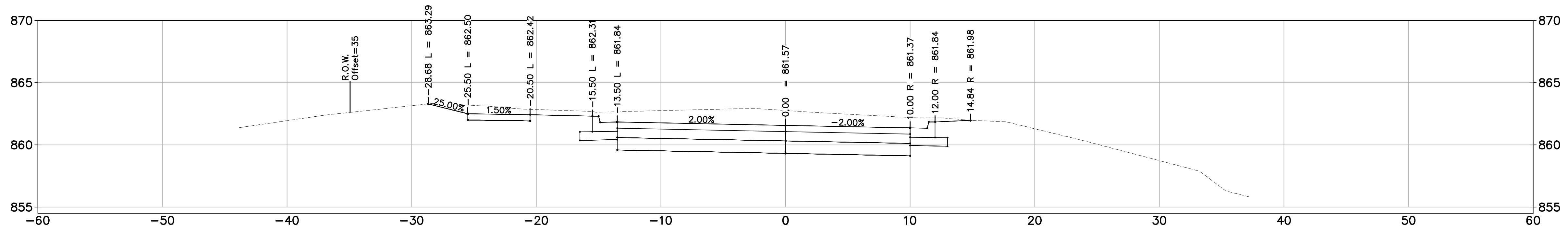
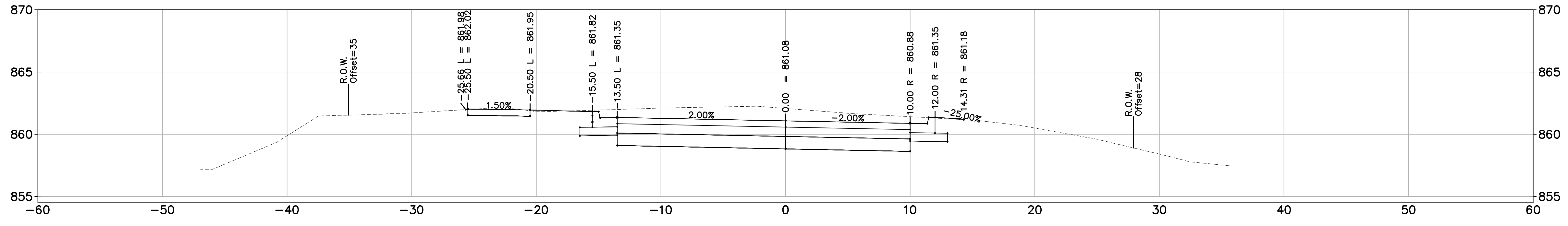


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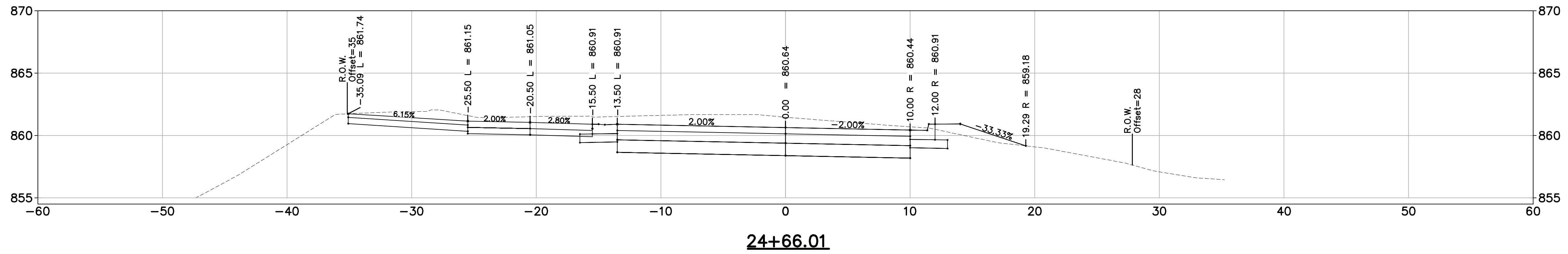
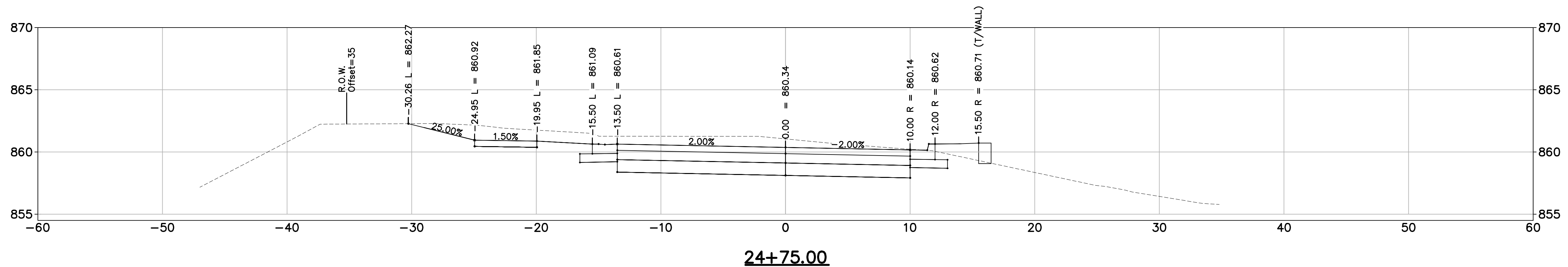
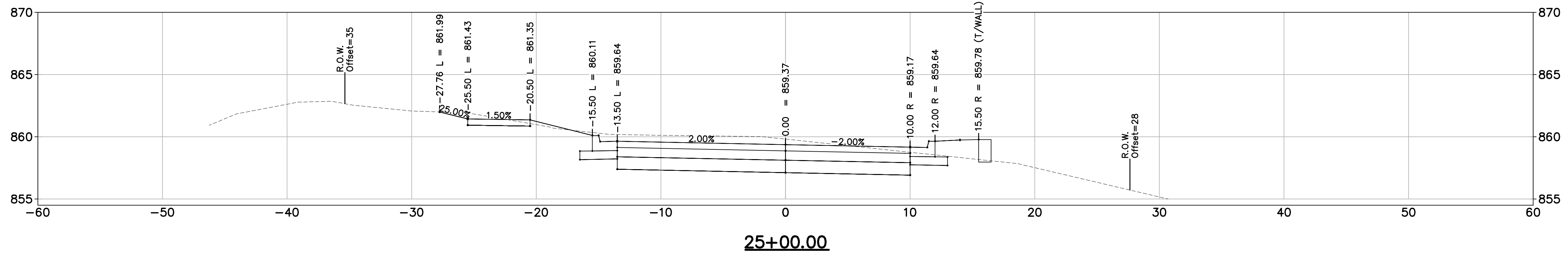
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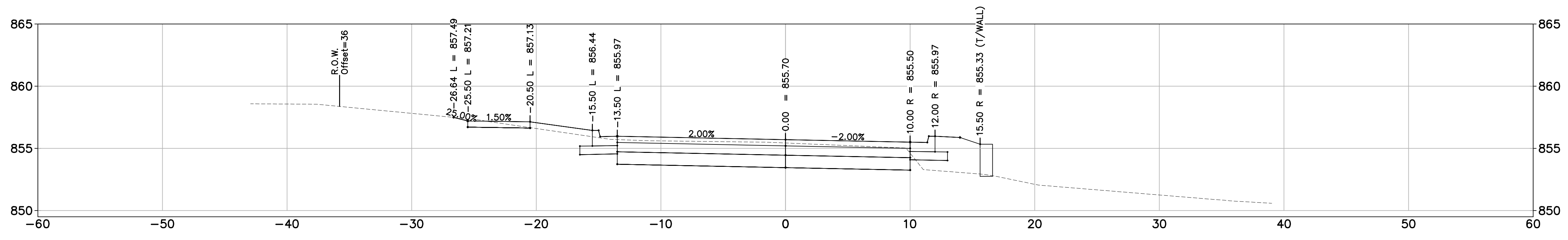
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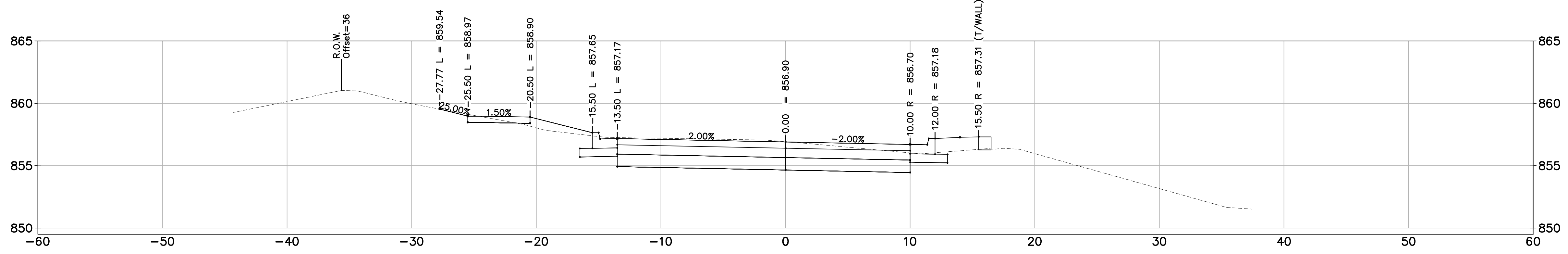


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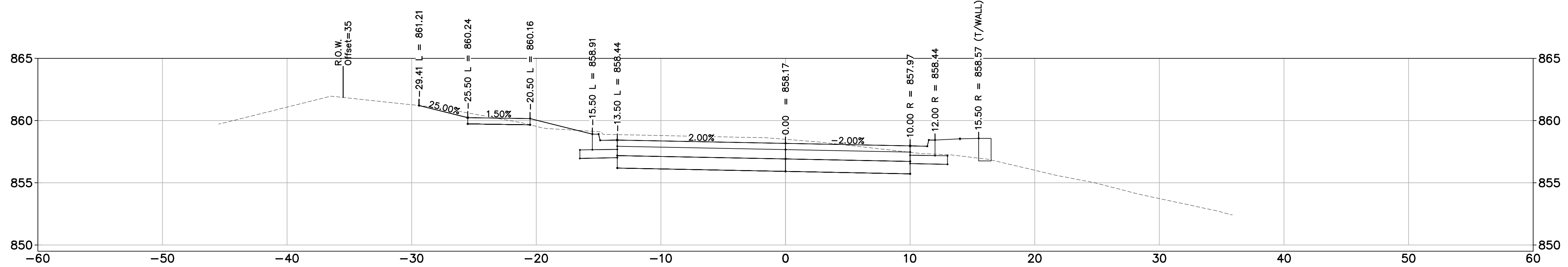
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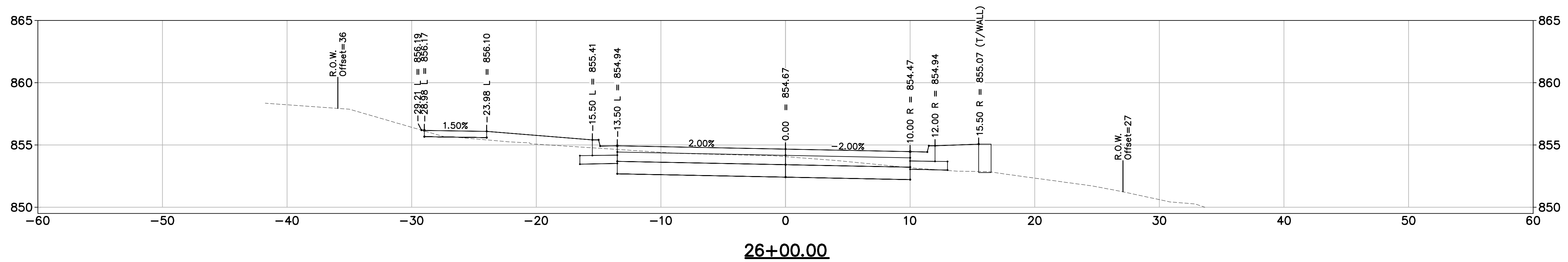
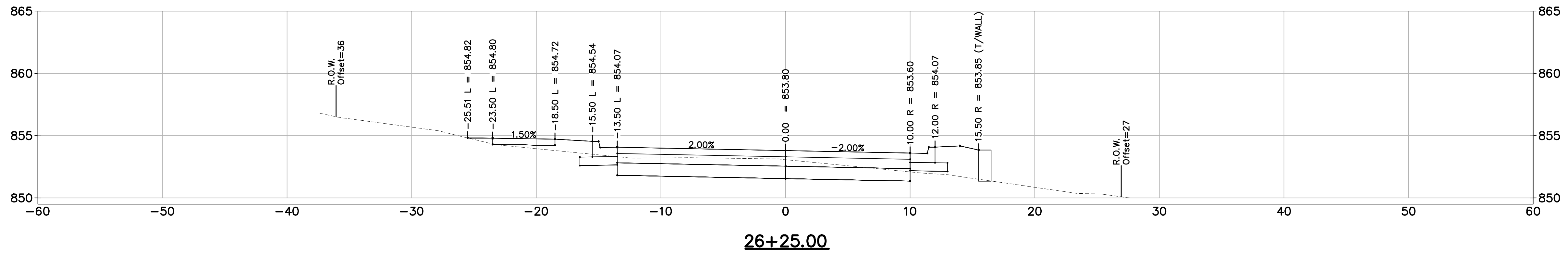
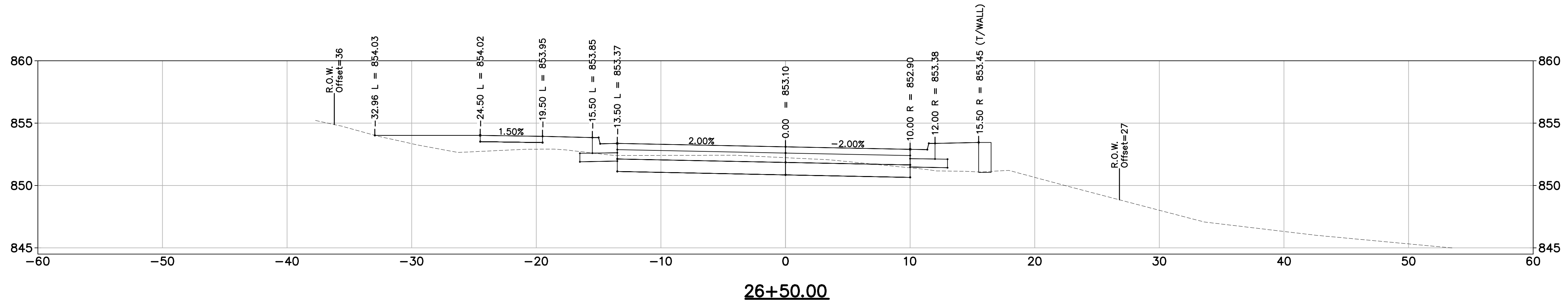
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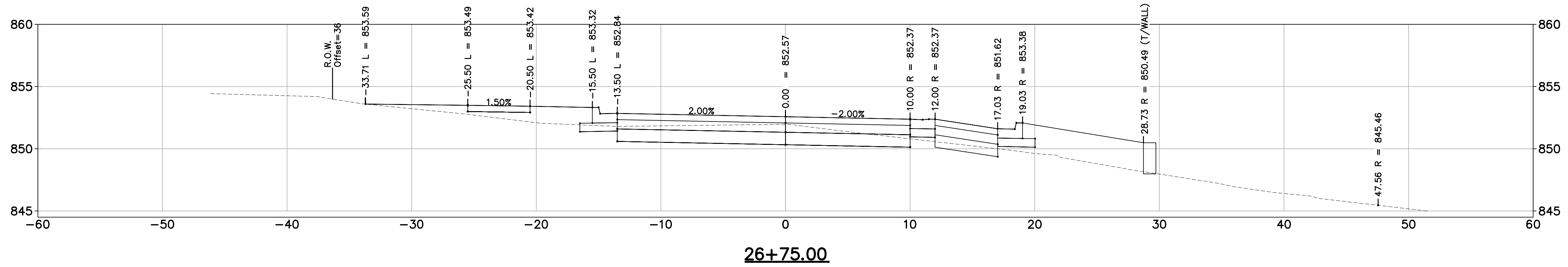
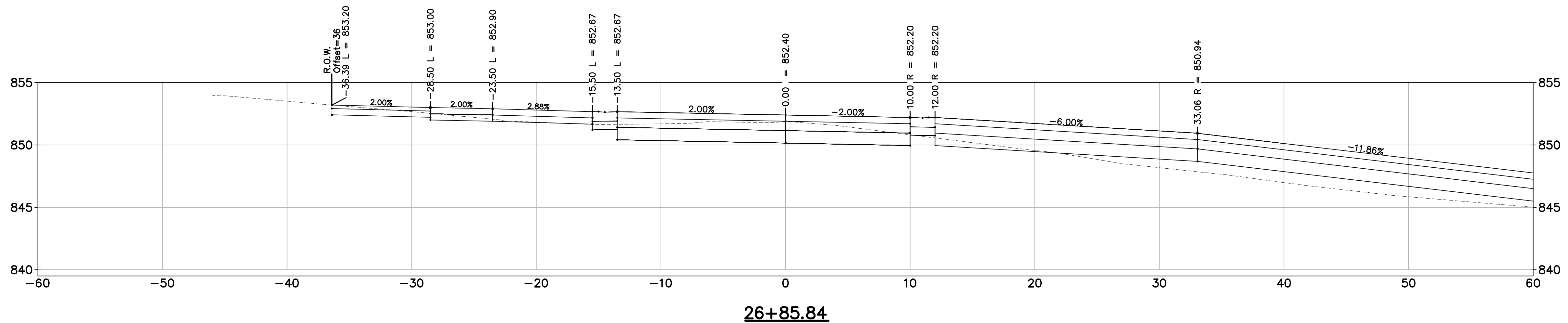
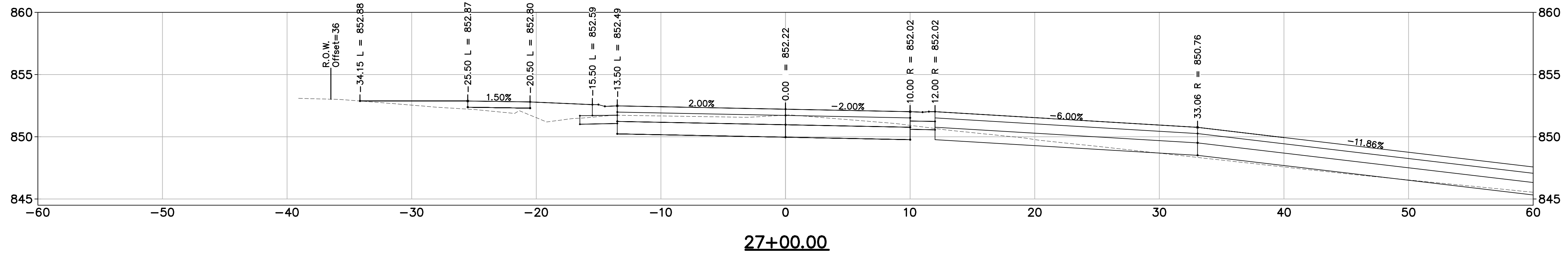
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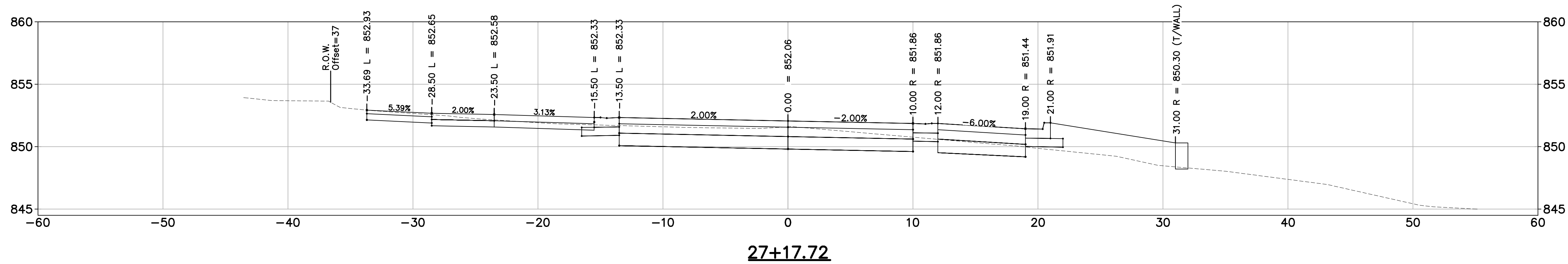
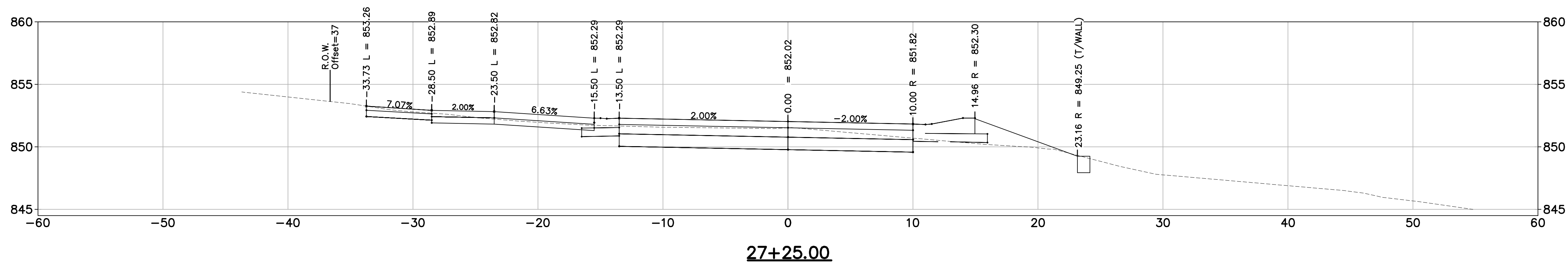
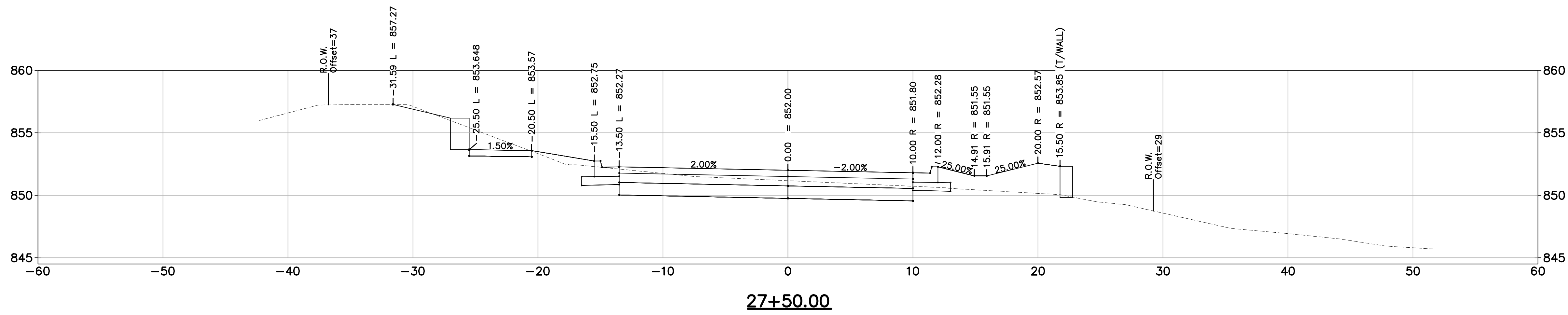
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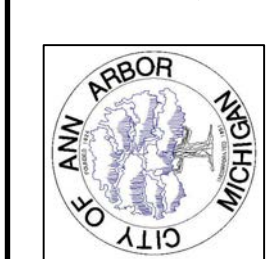
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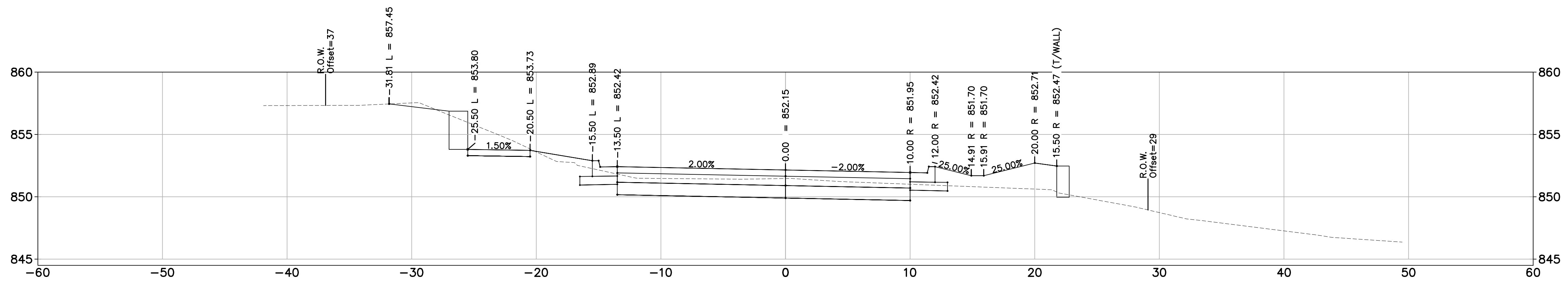
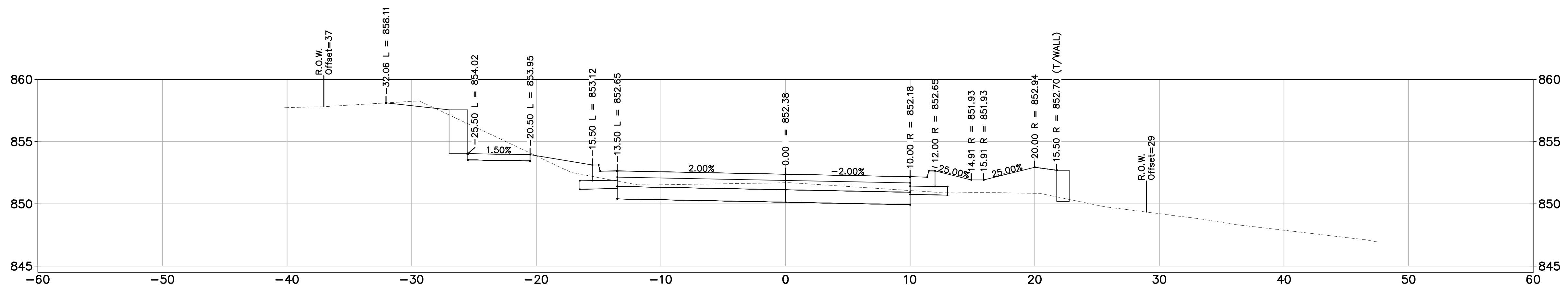
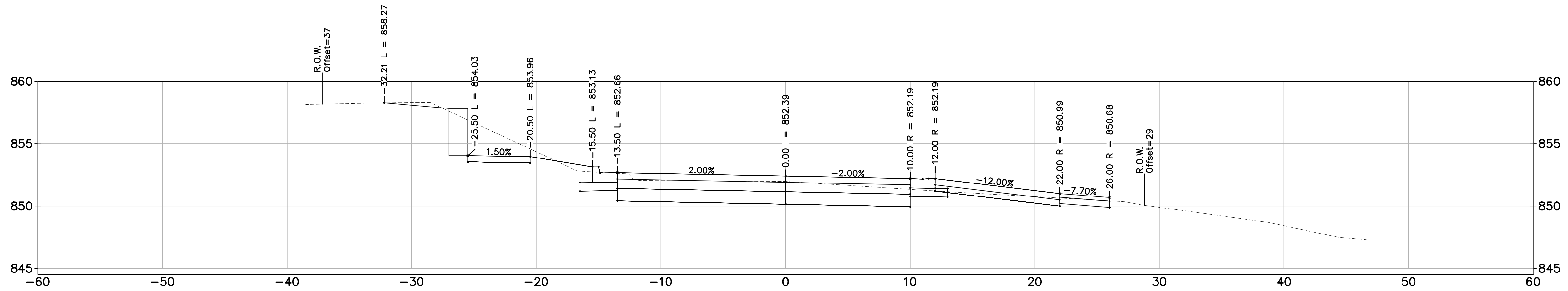
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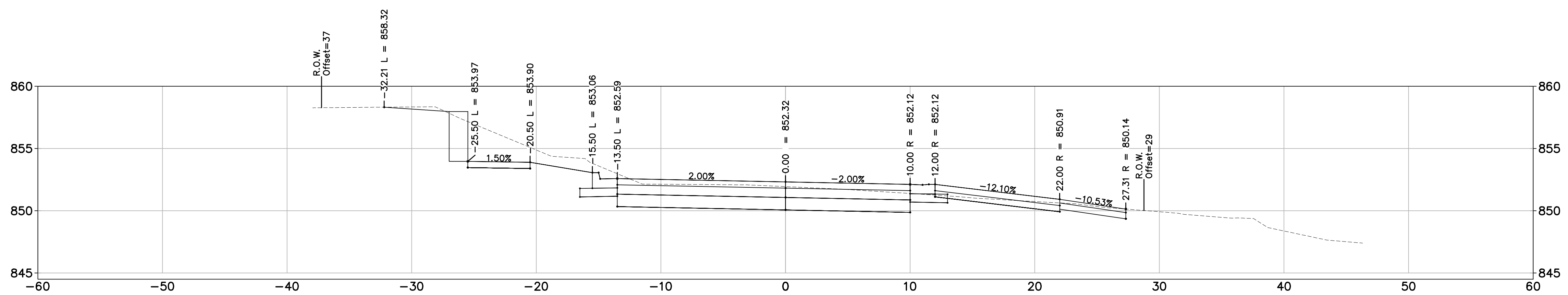
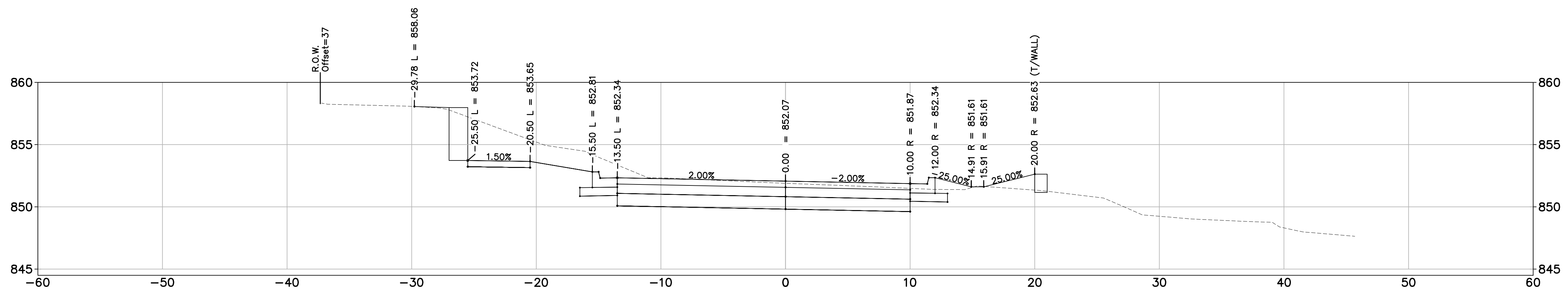
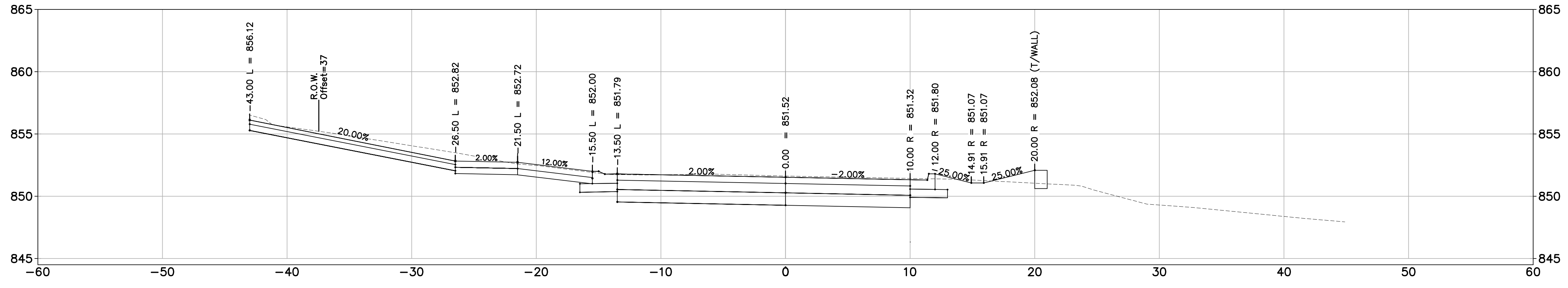
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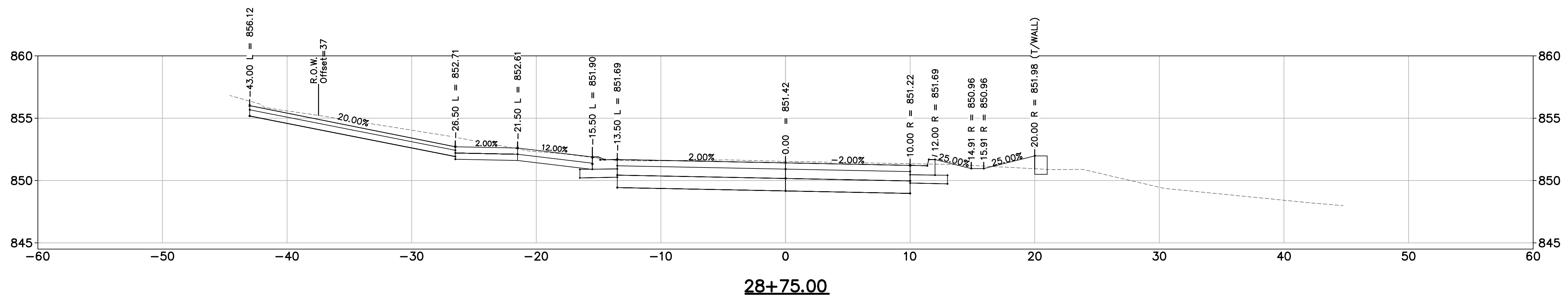
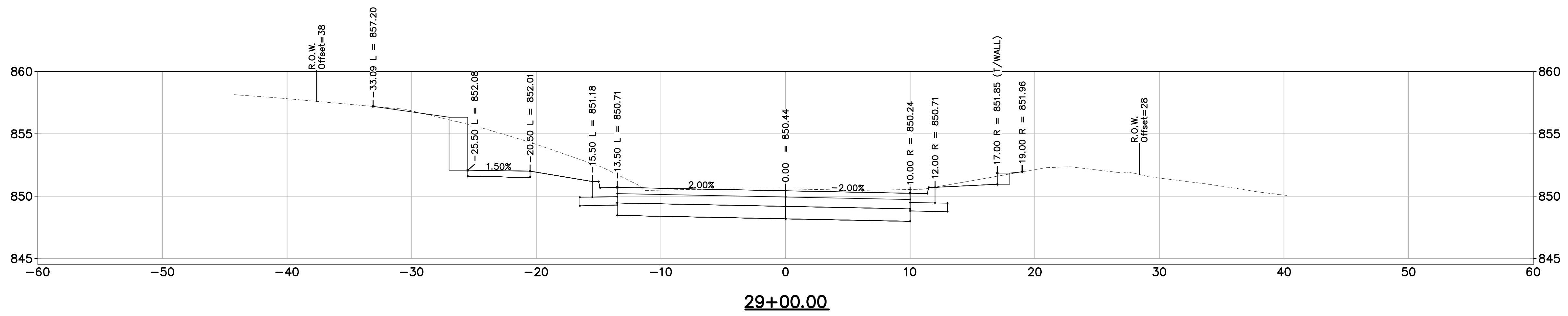
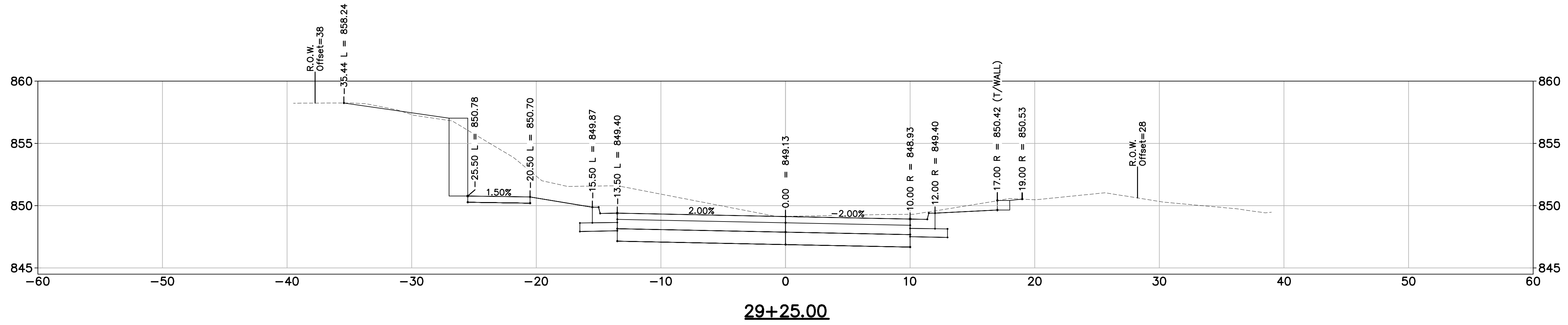
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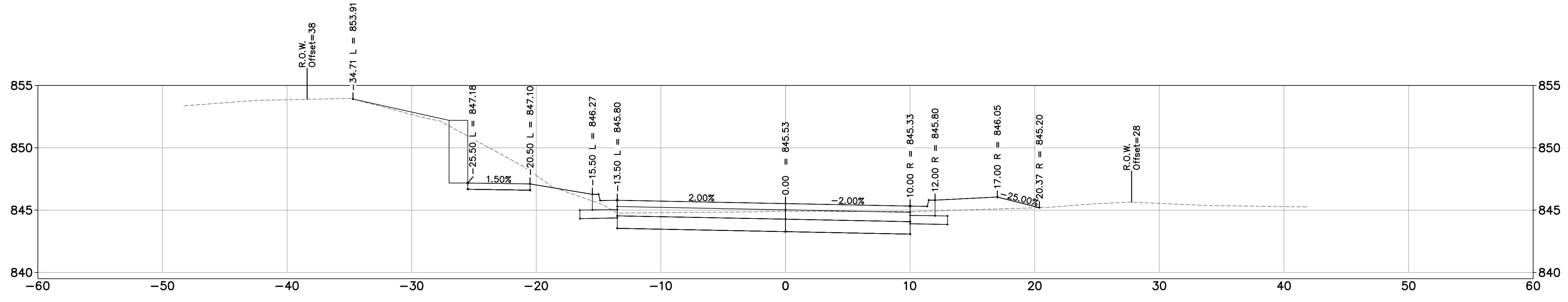
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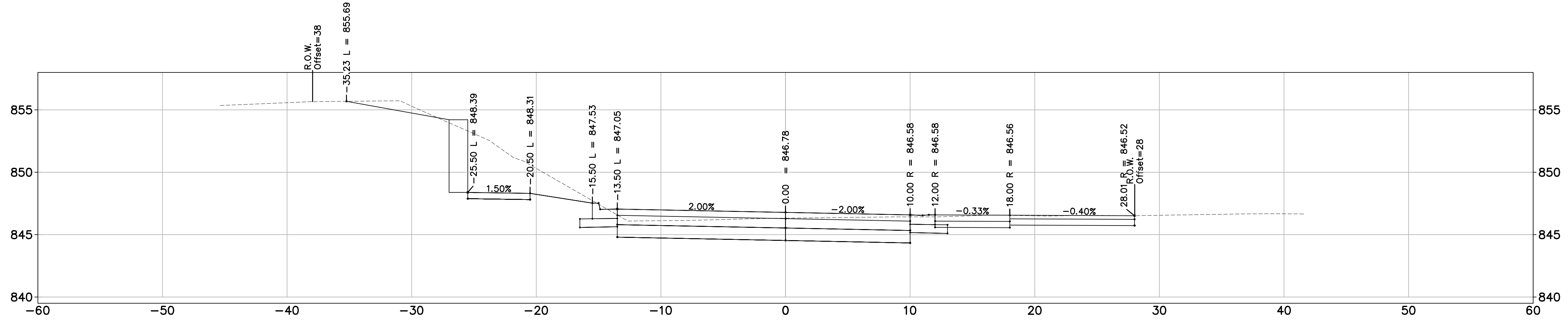


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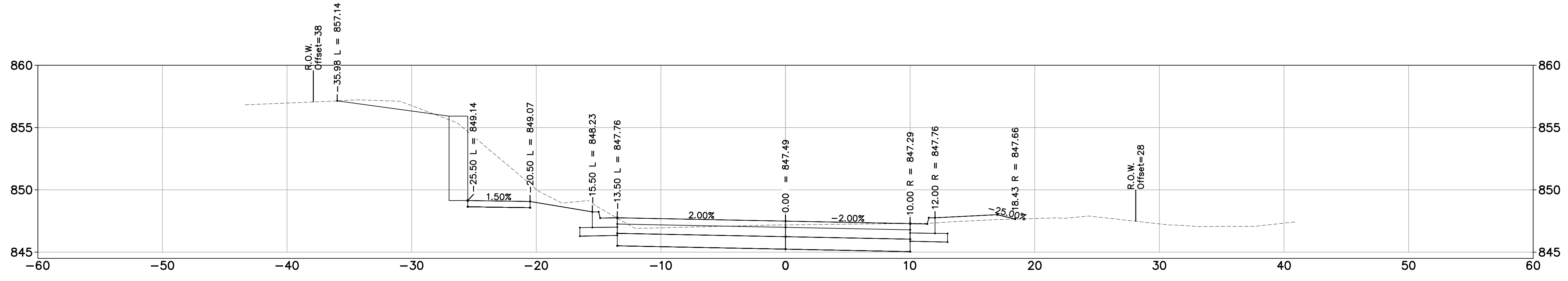
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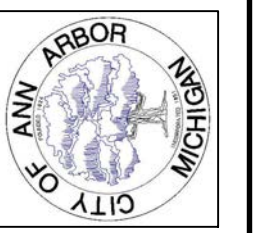


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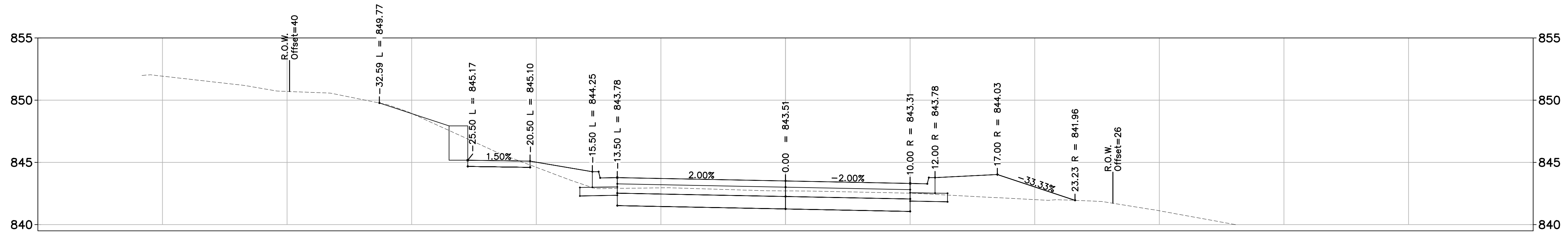
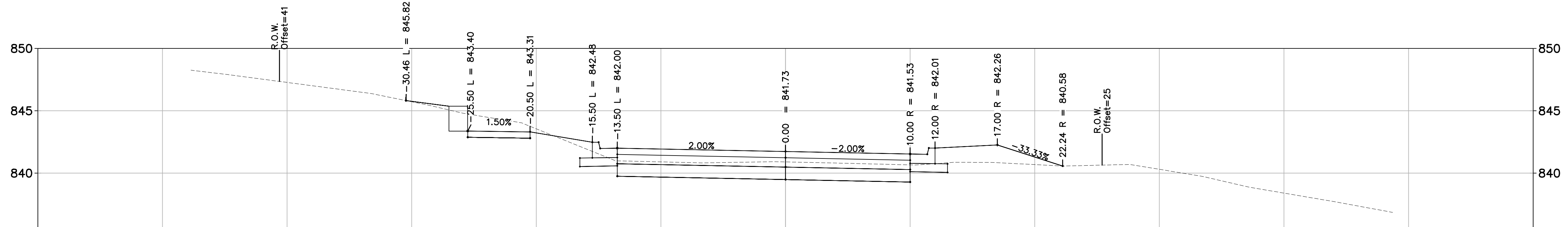
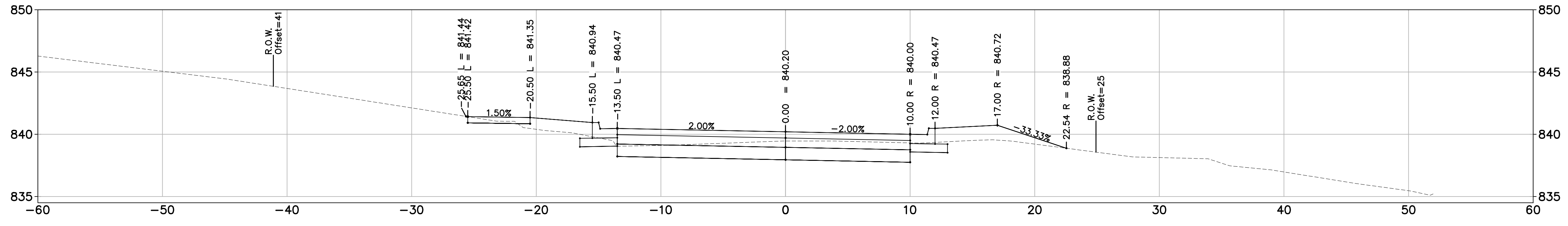
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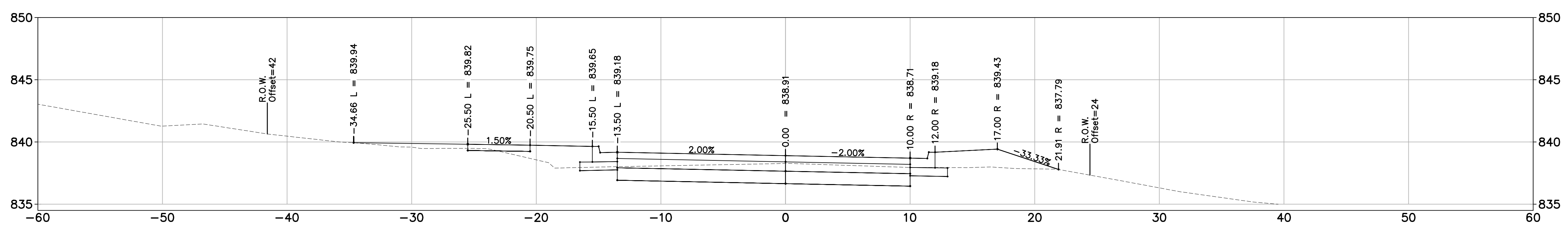
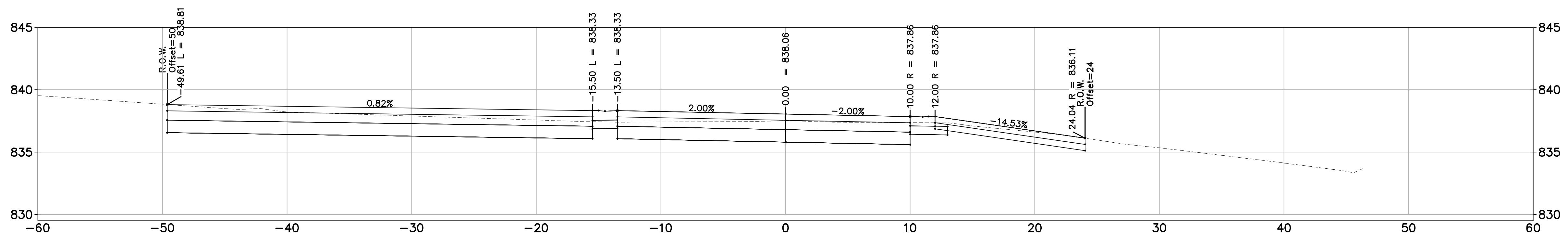
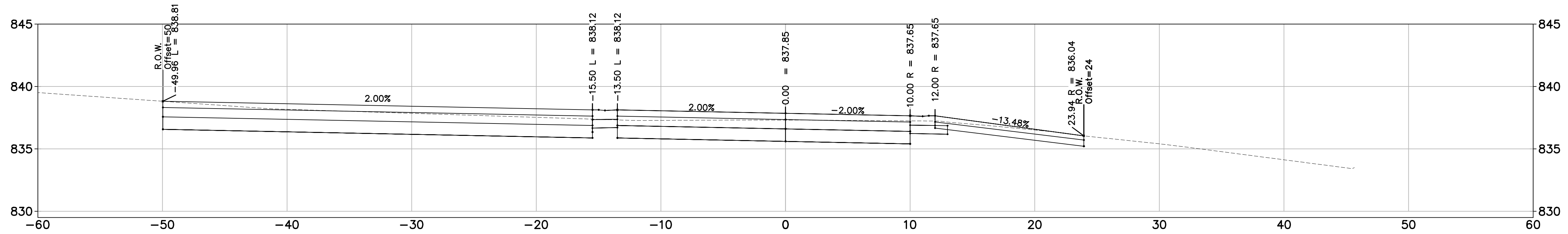
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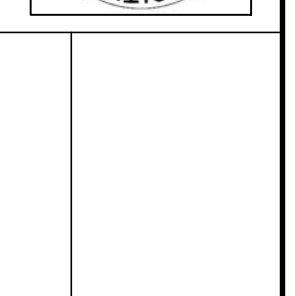
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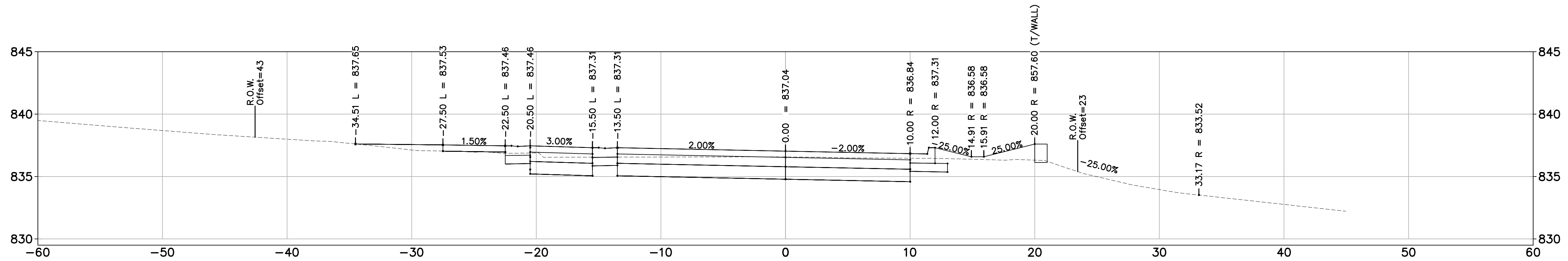
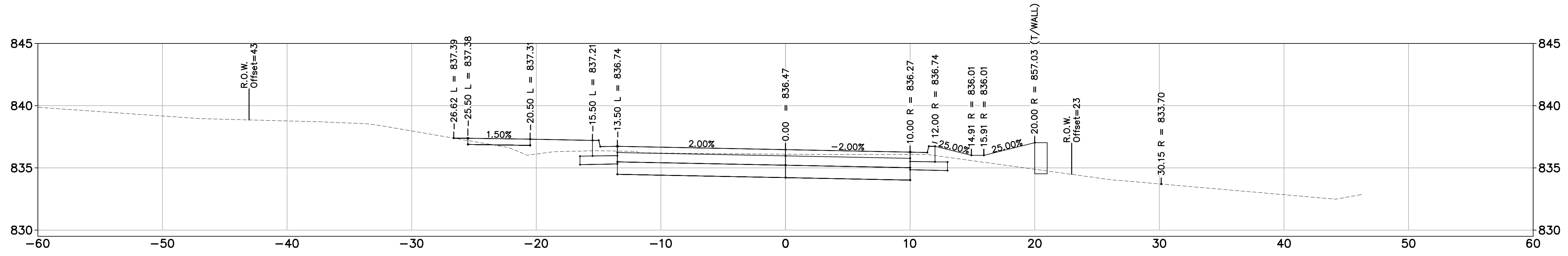
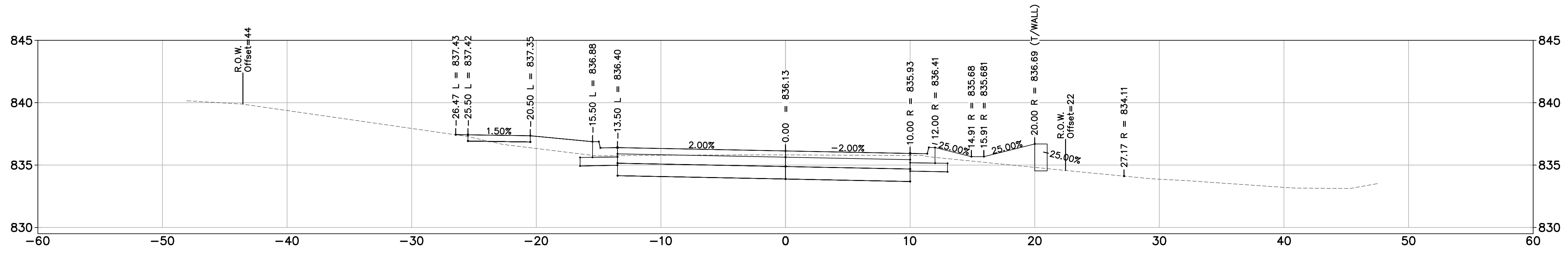
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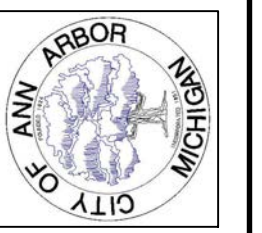
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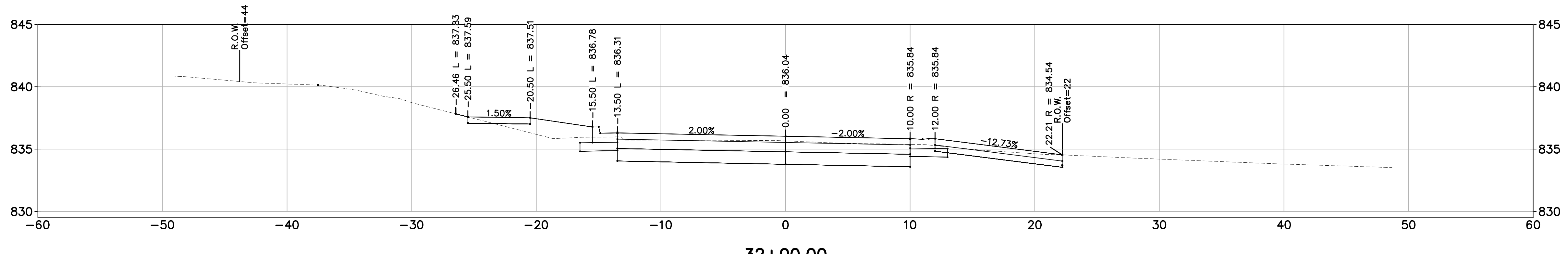
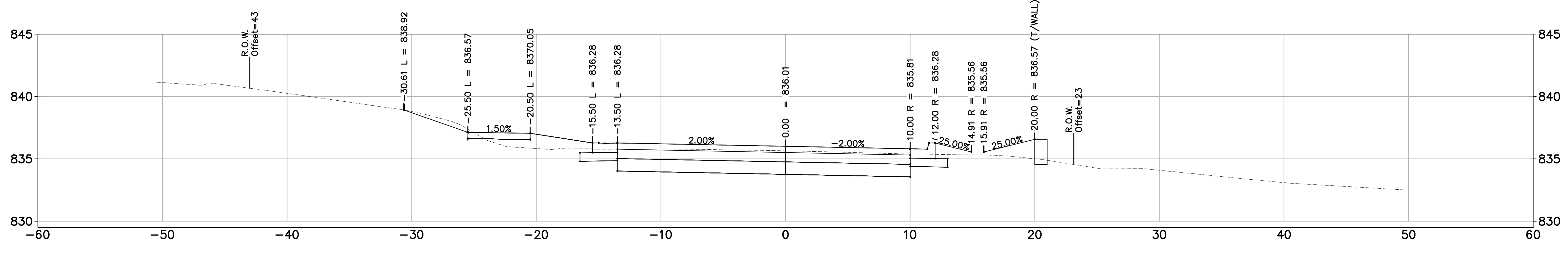
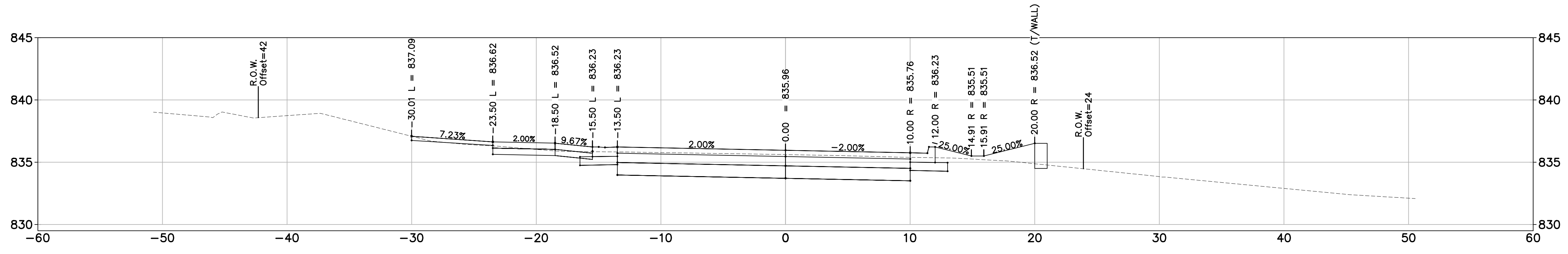
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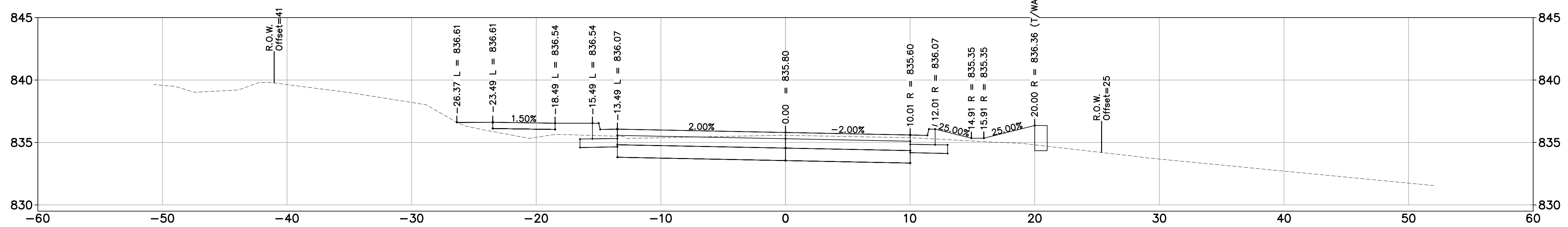
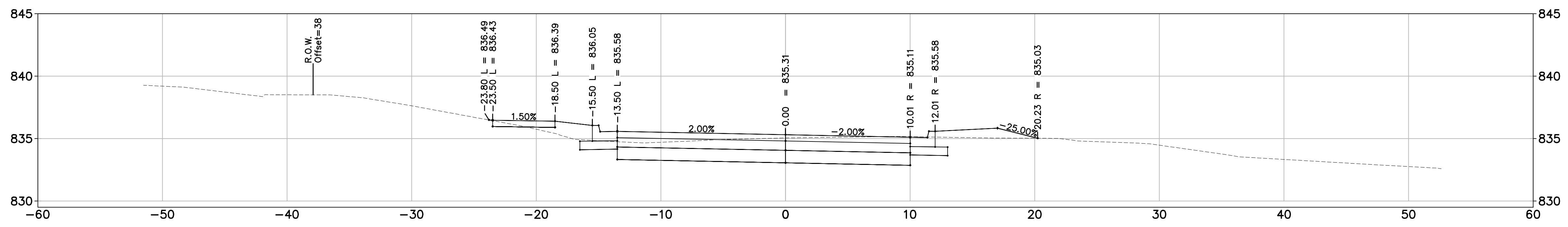
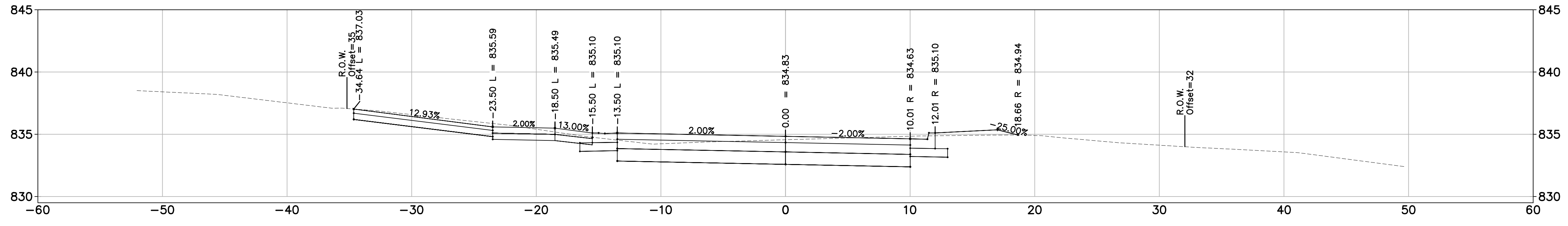
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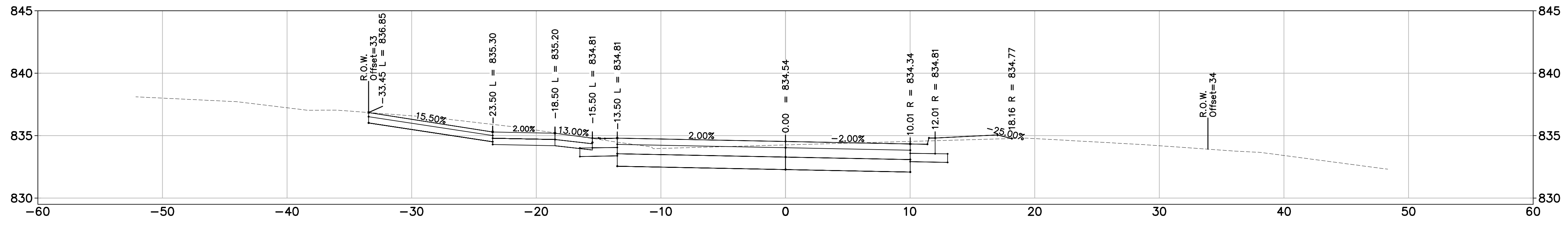
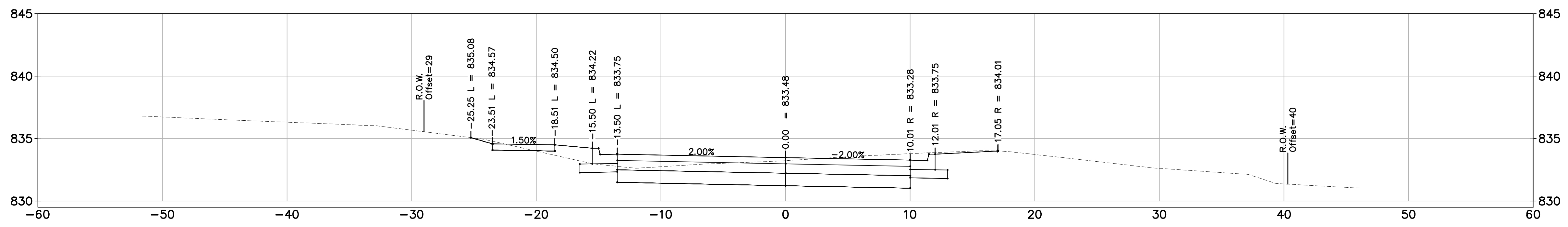
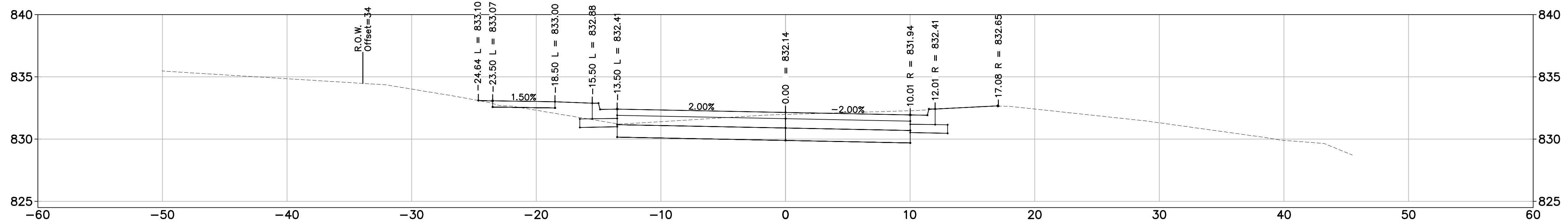
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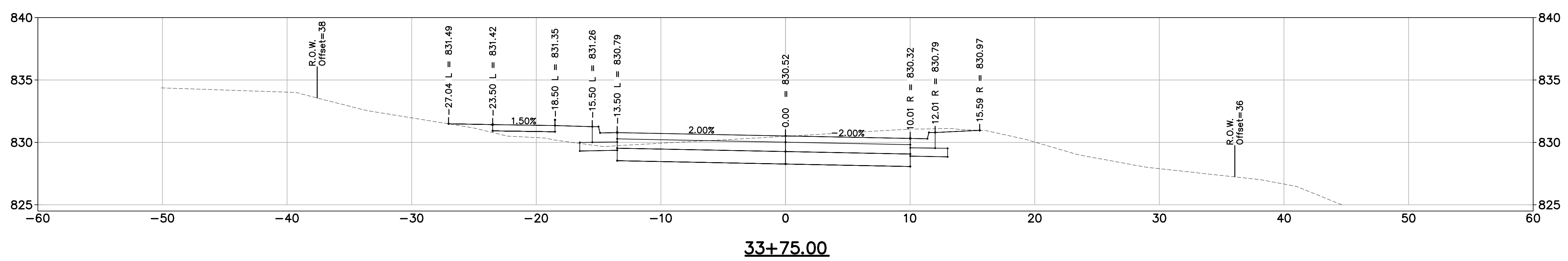
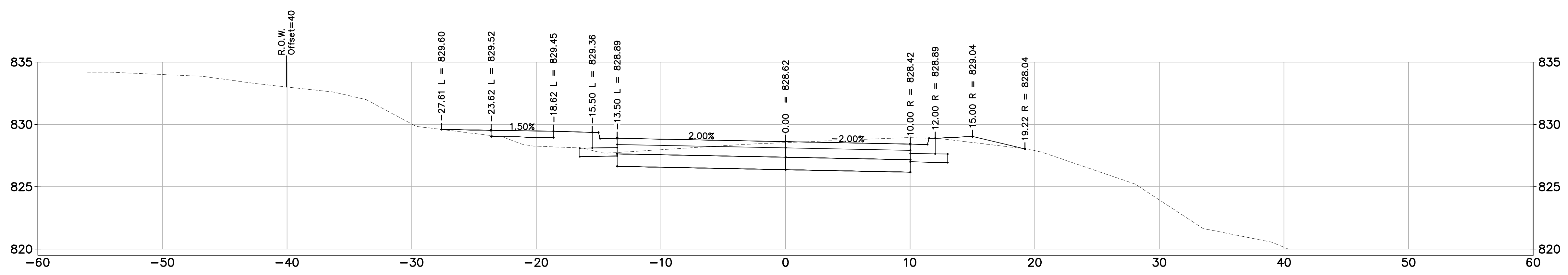
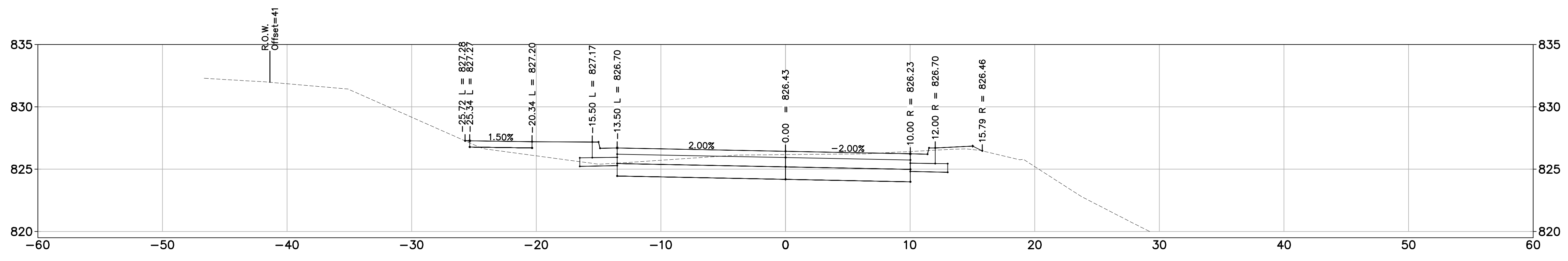


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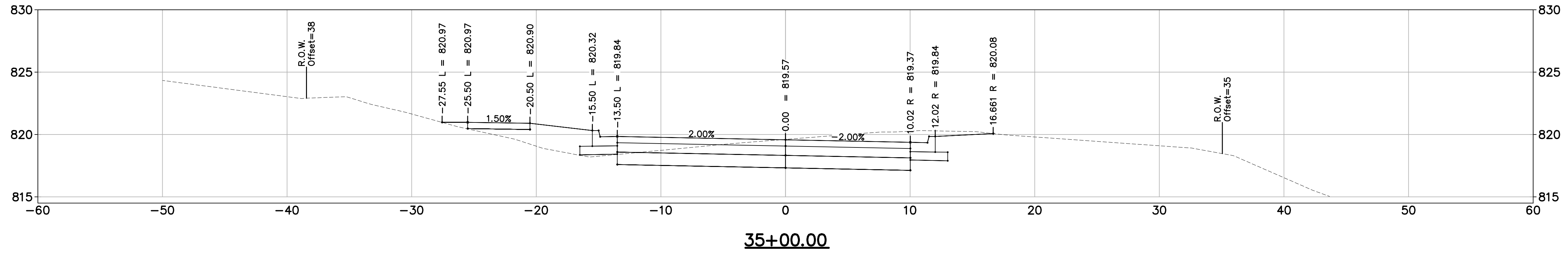


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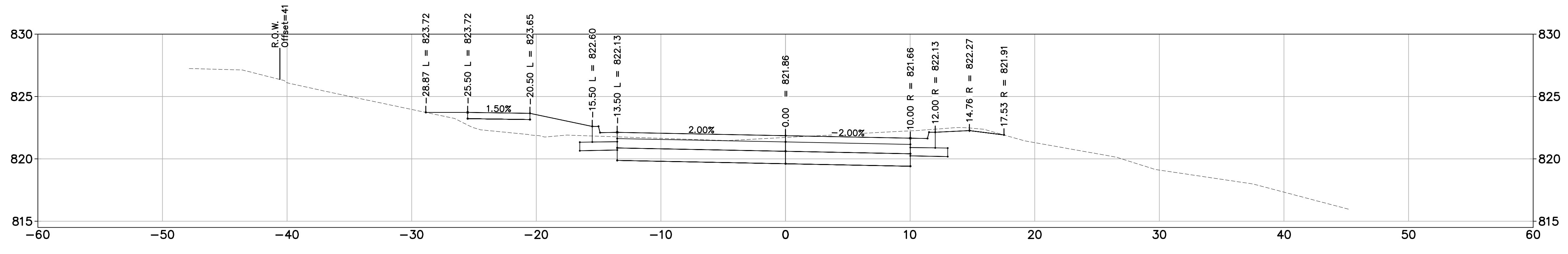
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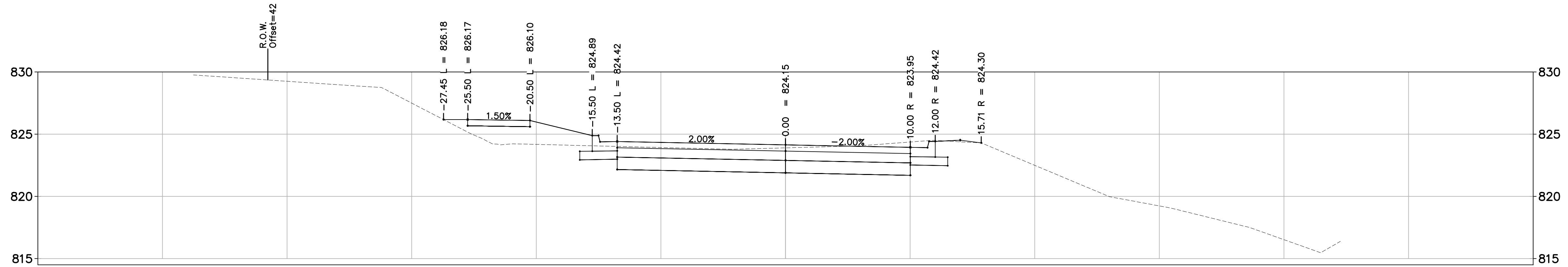
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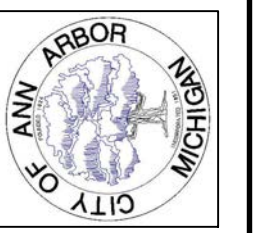


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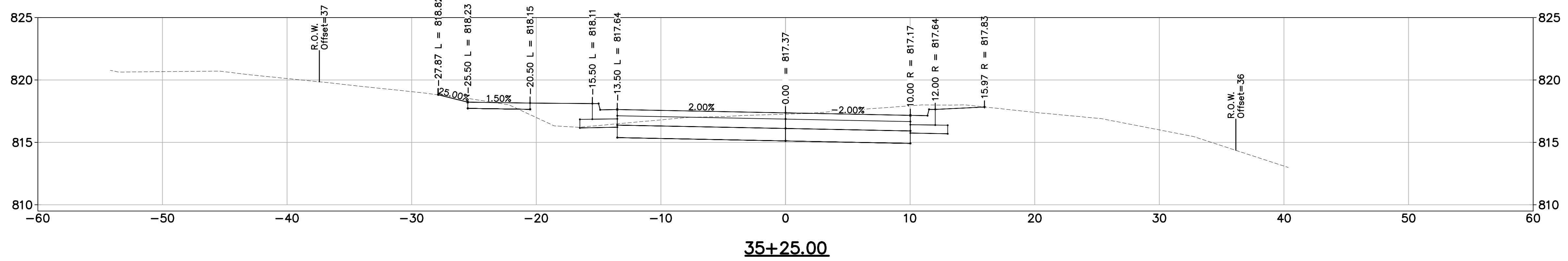
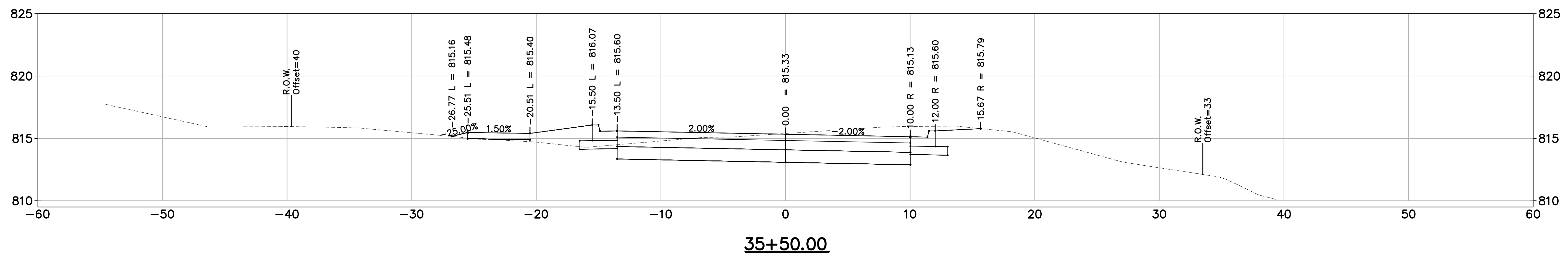
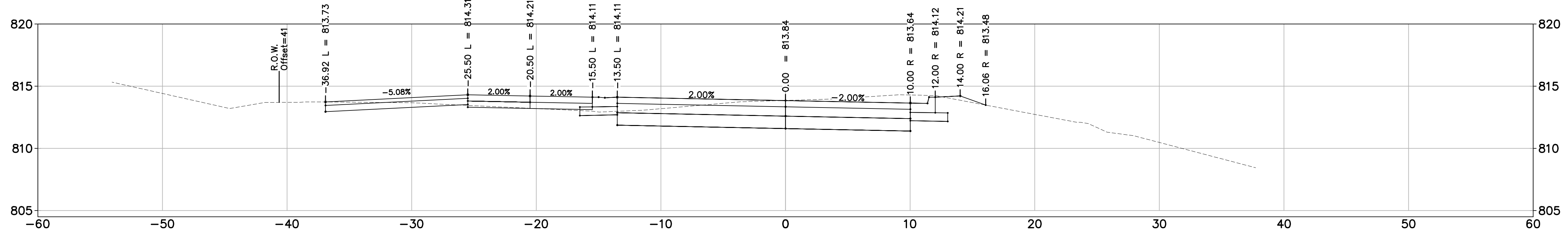
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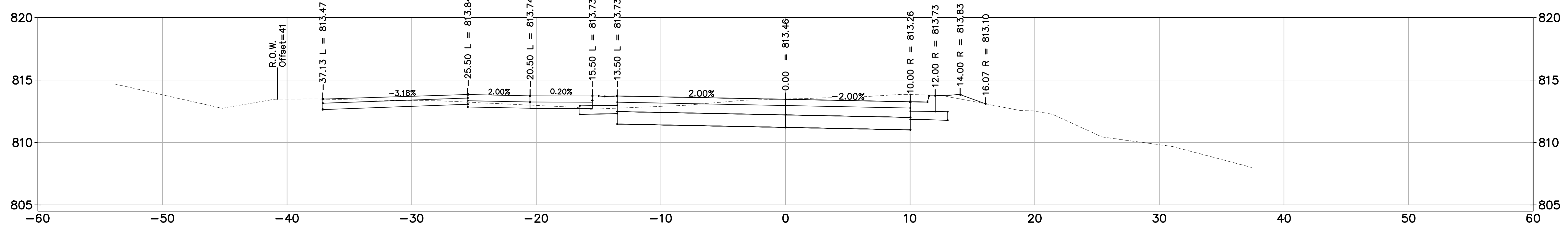
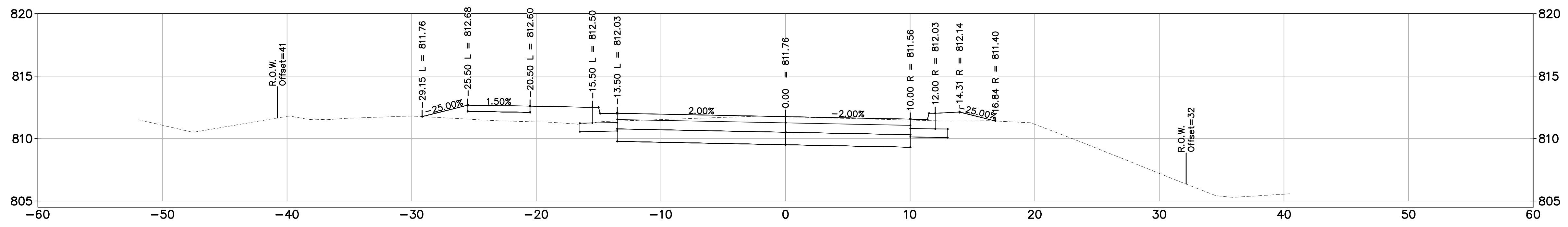
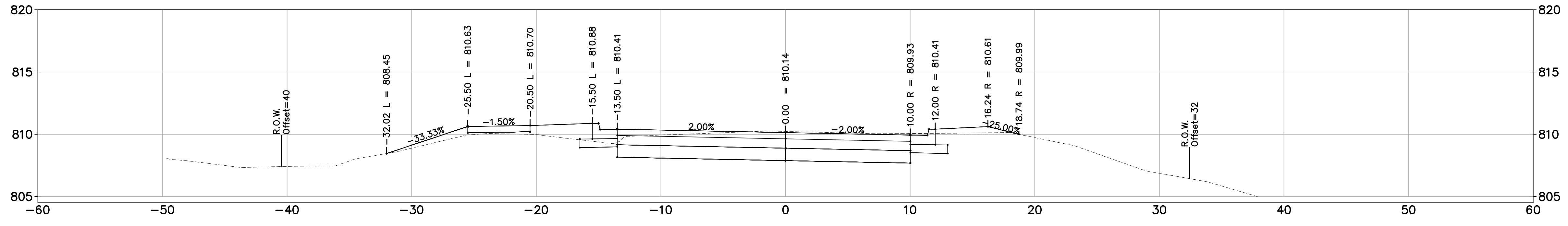


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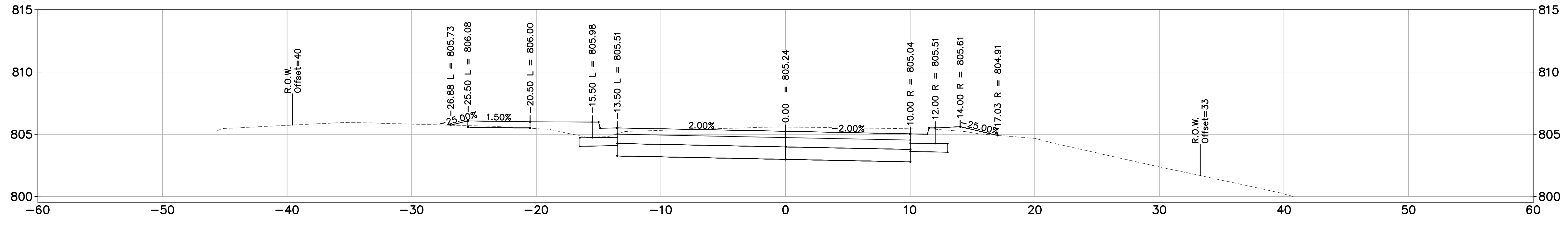
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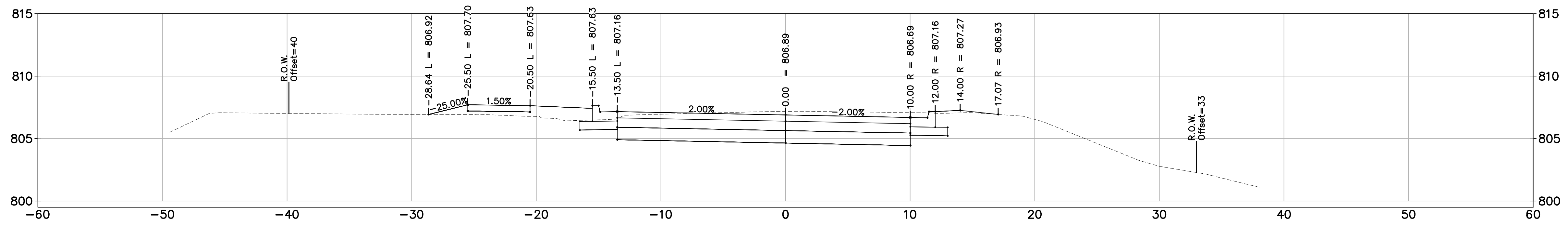


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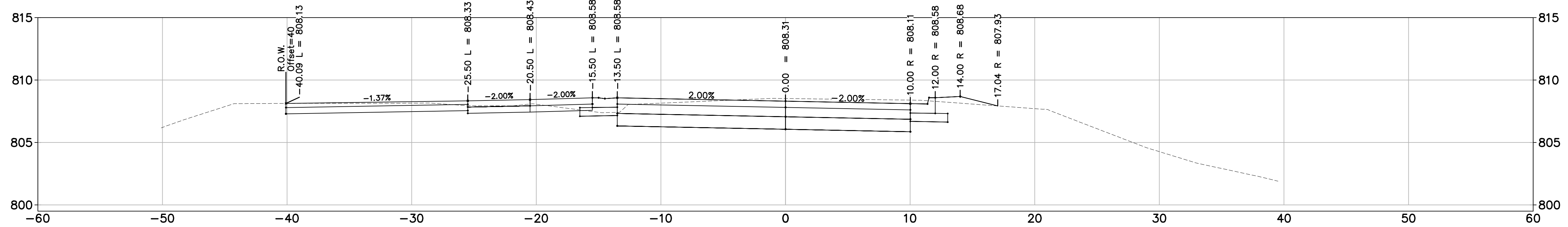
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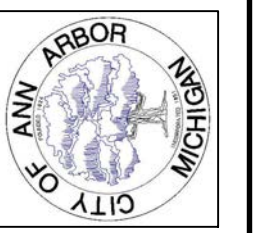


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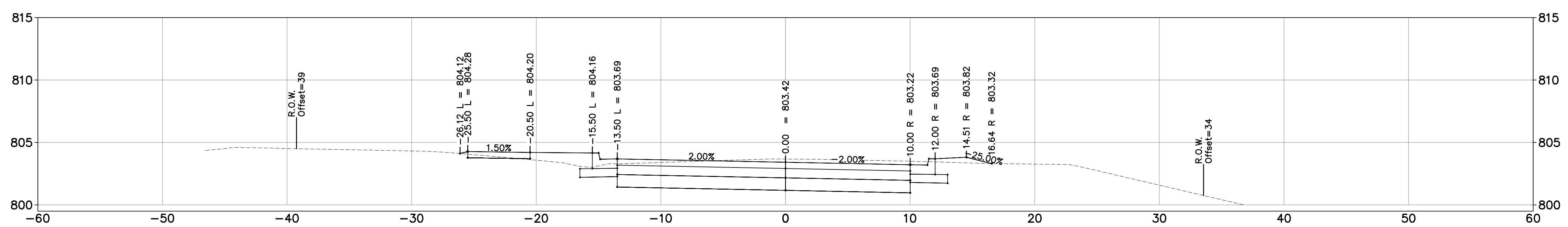
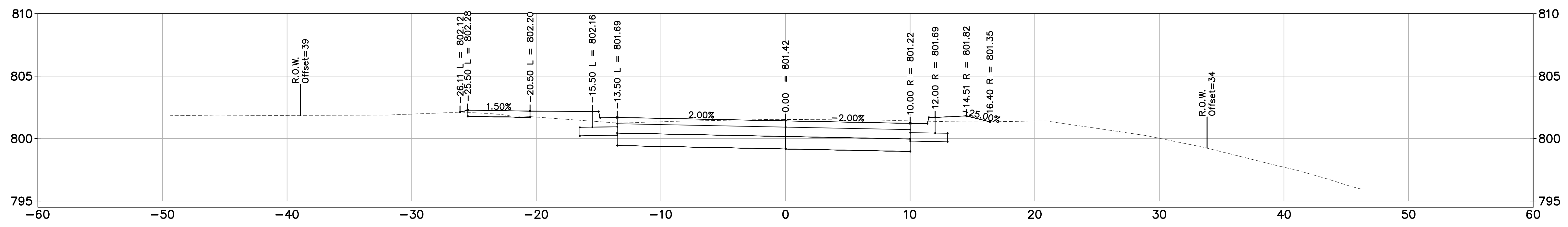
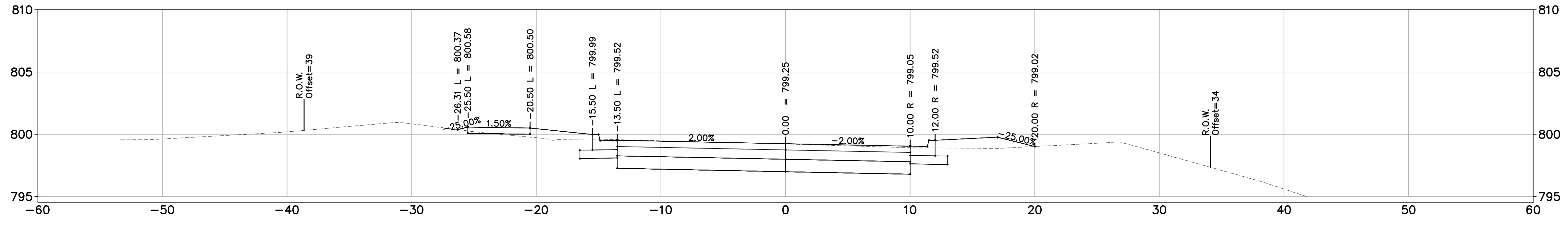
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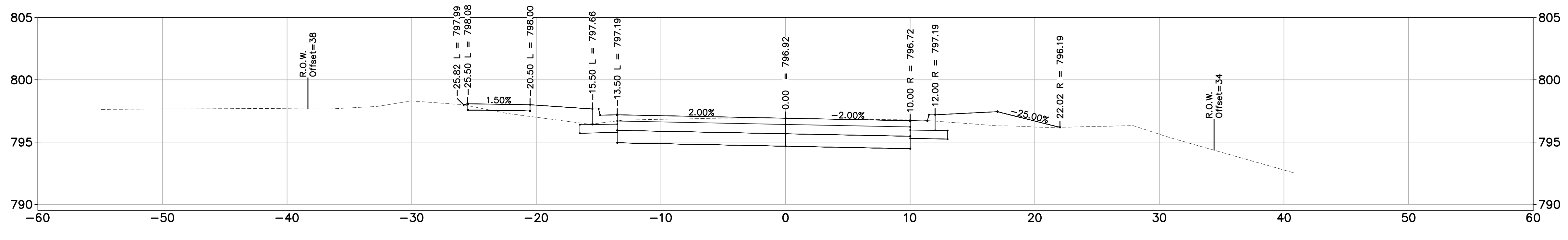
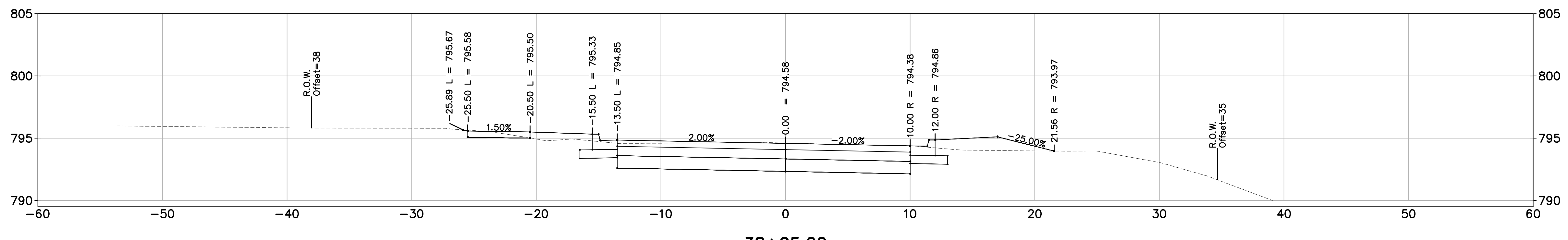
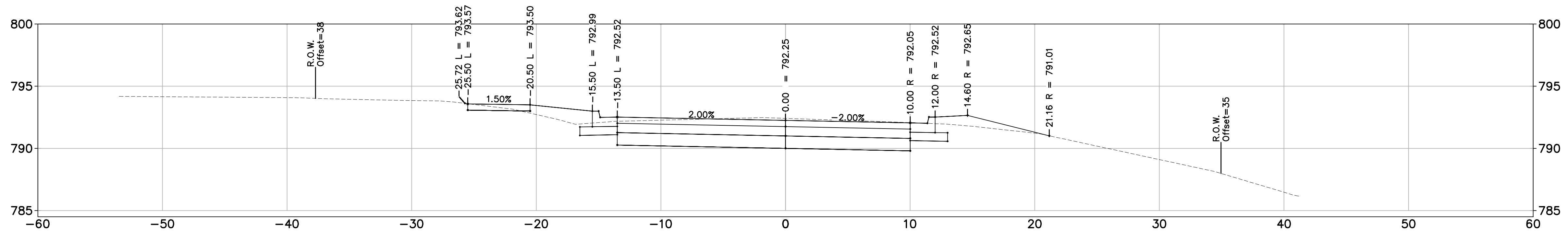
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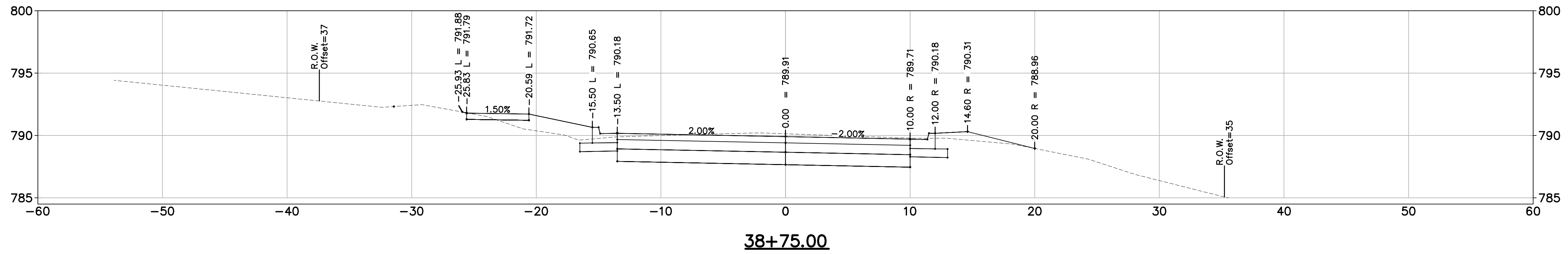
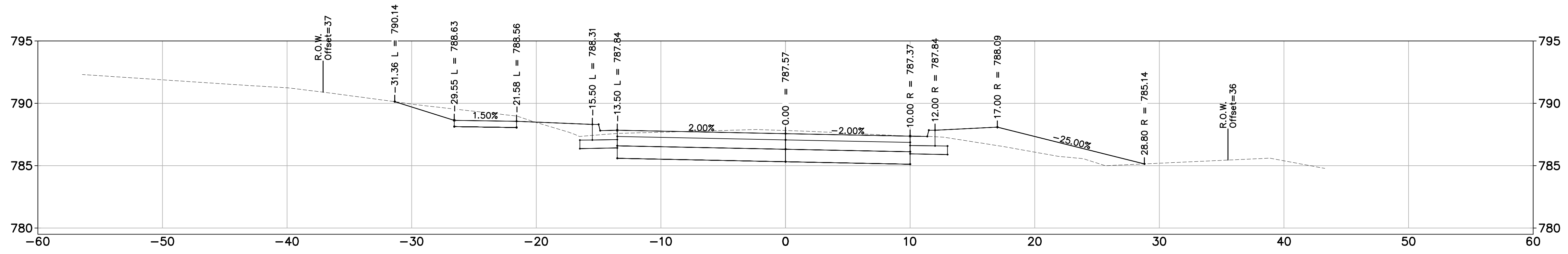
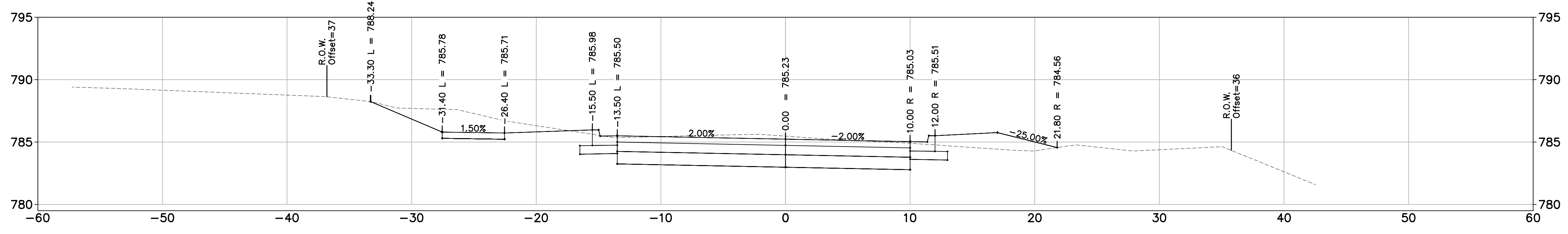


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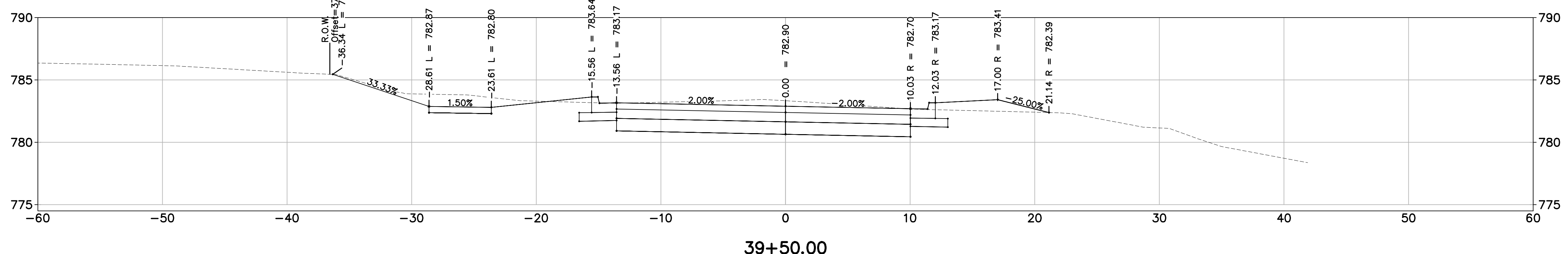
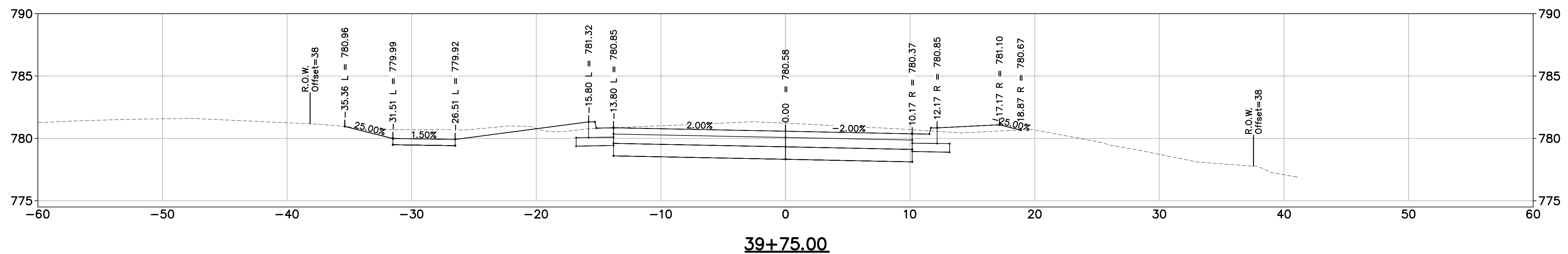
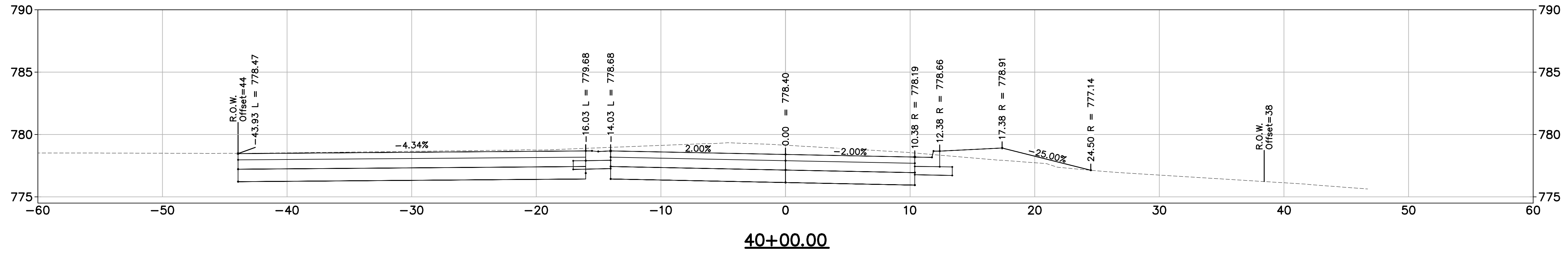
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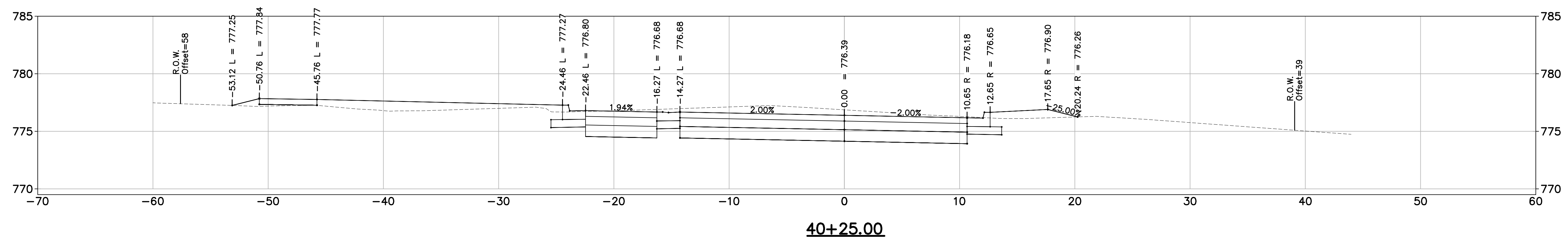
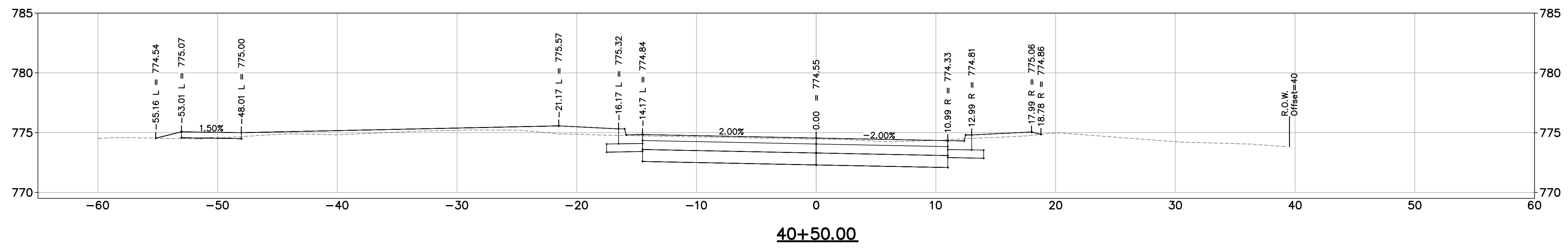
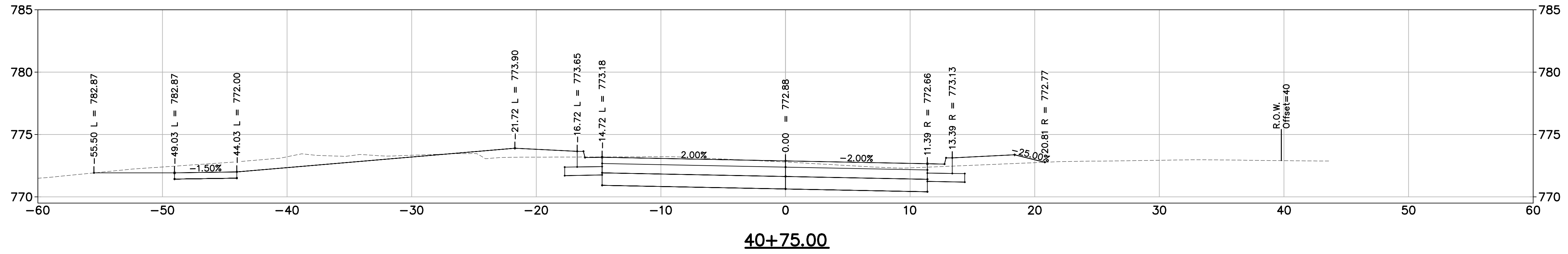
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1	ISSUED FOR BIDS	APR. 22, 2015	ALP/MN	CEH
2	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/MN	CEH
3	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/MN	CEH
4	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/MN	CEH

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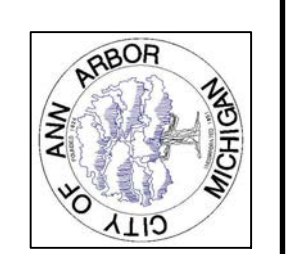
PROJECT MANAGEMENT – PUBLIC SERVICES – CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
ROAD CROSS SECTIONS

SCALE	DRAWING No.
SHEET No.	

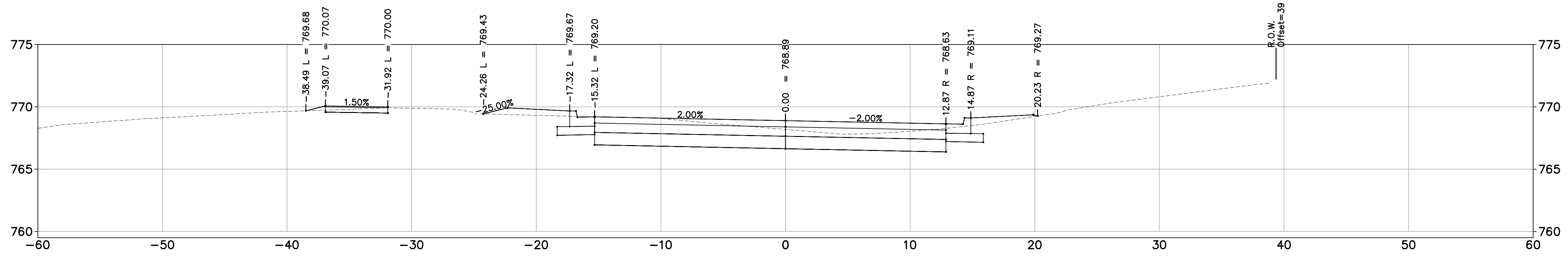


REV.	DESCRIPTION	DATE	DRAWN	CHECKED
1	ISSUED FOR BIDS	APR. 22, 2015	ALP/MN	CEH
2	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/MN	CEH
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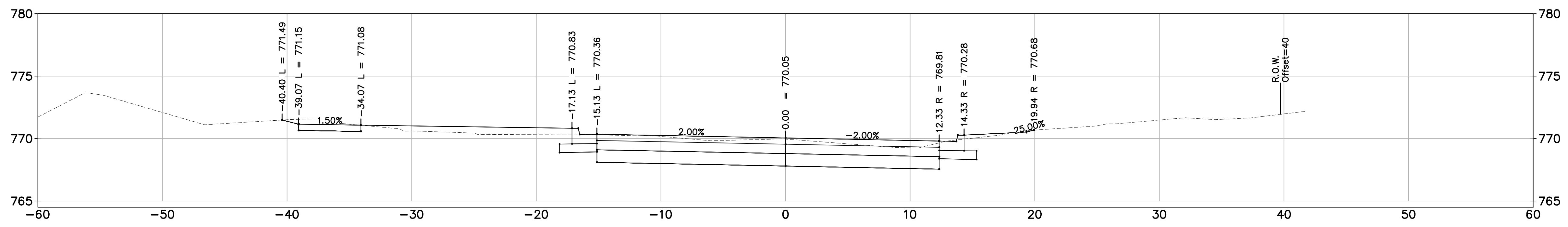
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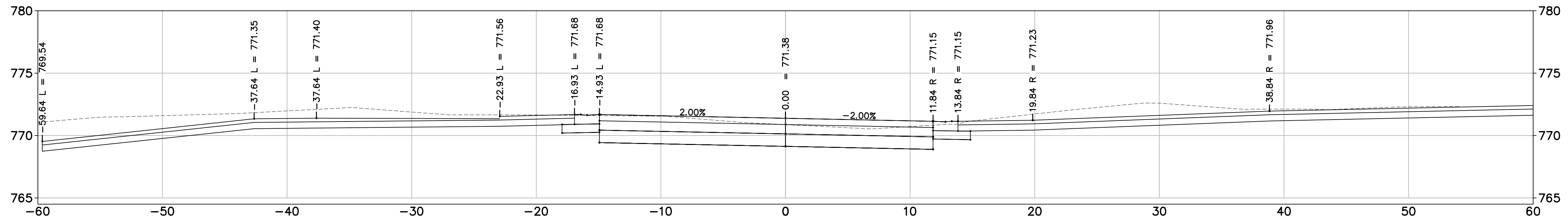
PROJECT MANAGEMENT – PUBLIC SERVICES – CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
ROAD CROSS SECTIONS



41+50.00



41+25.00

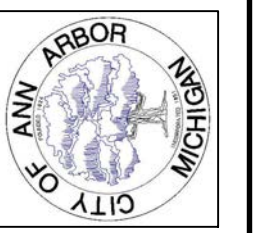


41+00.00



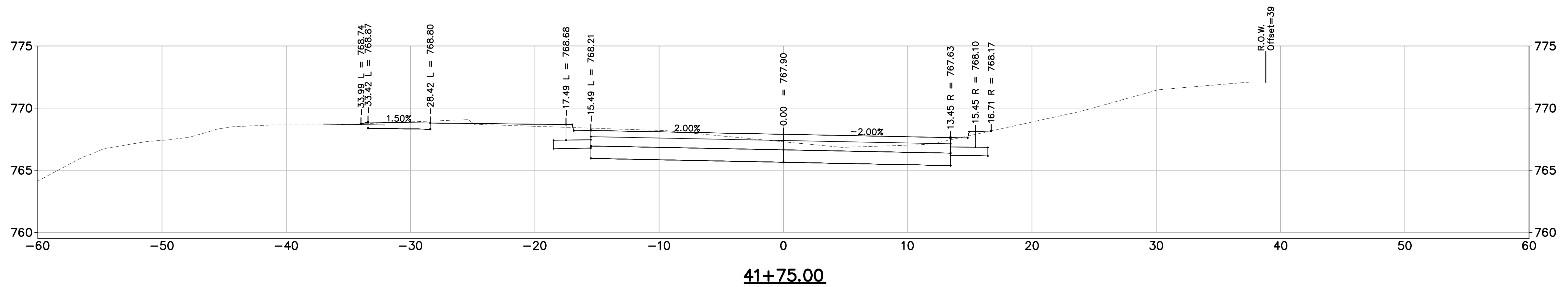
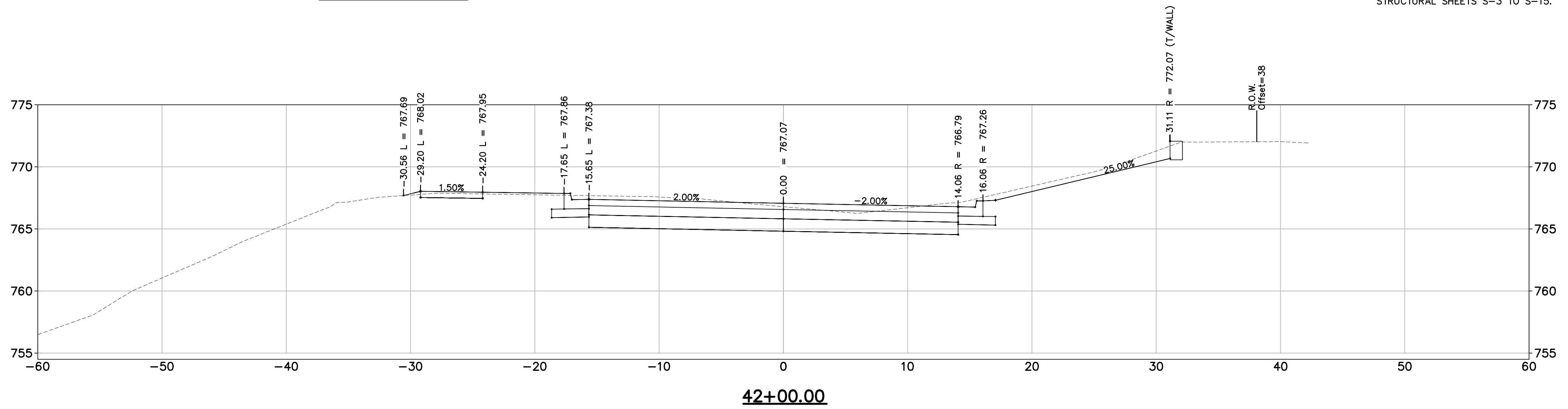
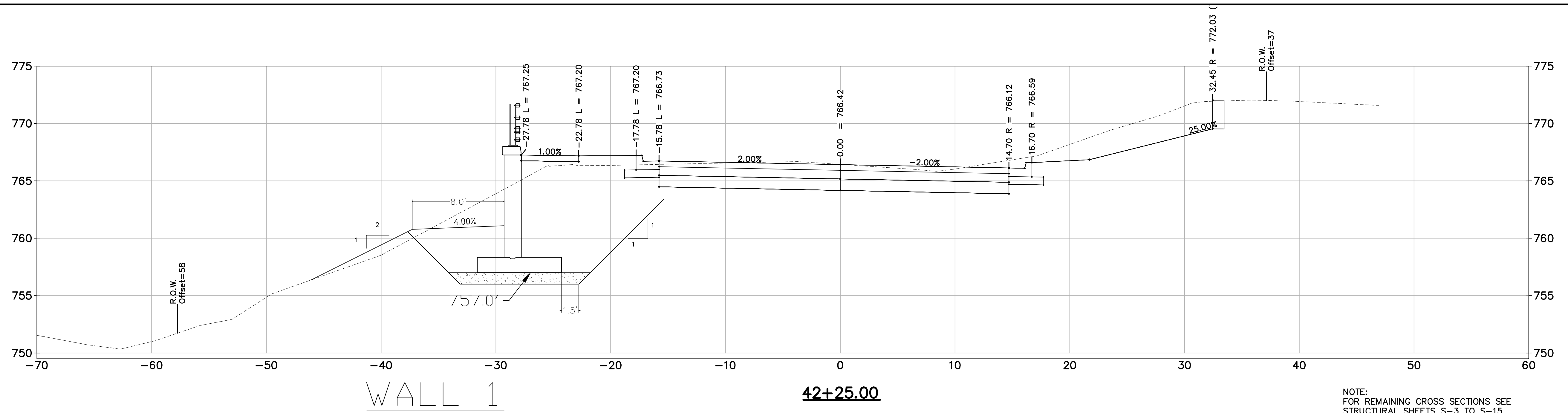
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
	ISSUED FOR BIDS	APR. 22, 2015	ALP/MIN	CEH
	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/MIN	CEH
	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/MIN	CEH
	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/MIN	CEH

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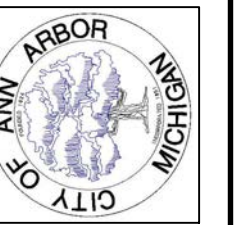
PROJECT MANAGEMENT – PUBLIC SERVICES – CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
ROAD CROSS SECTIONS

SCALE	
DRAWING No.	
SHEET No.	



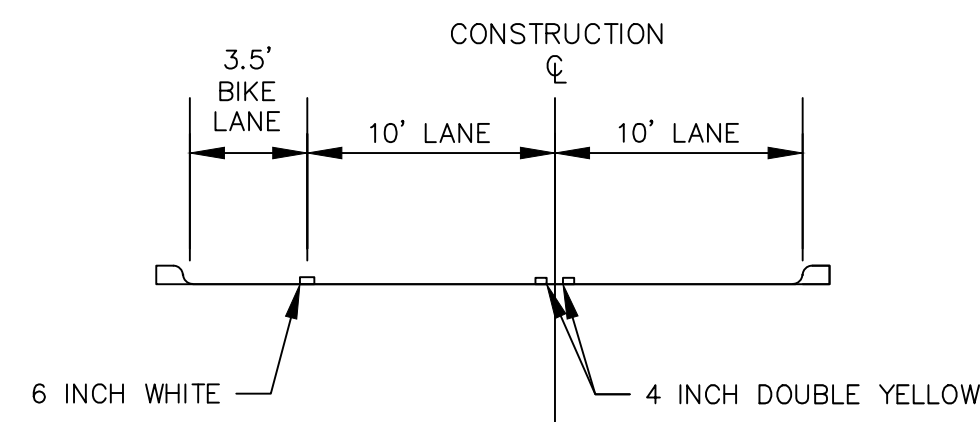
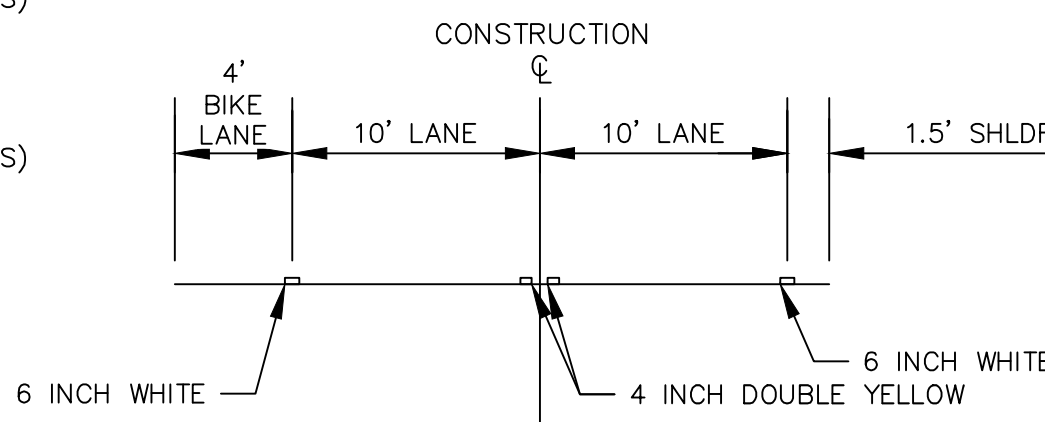
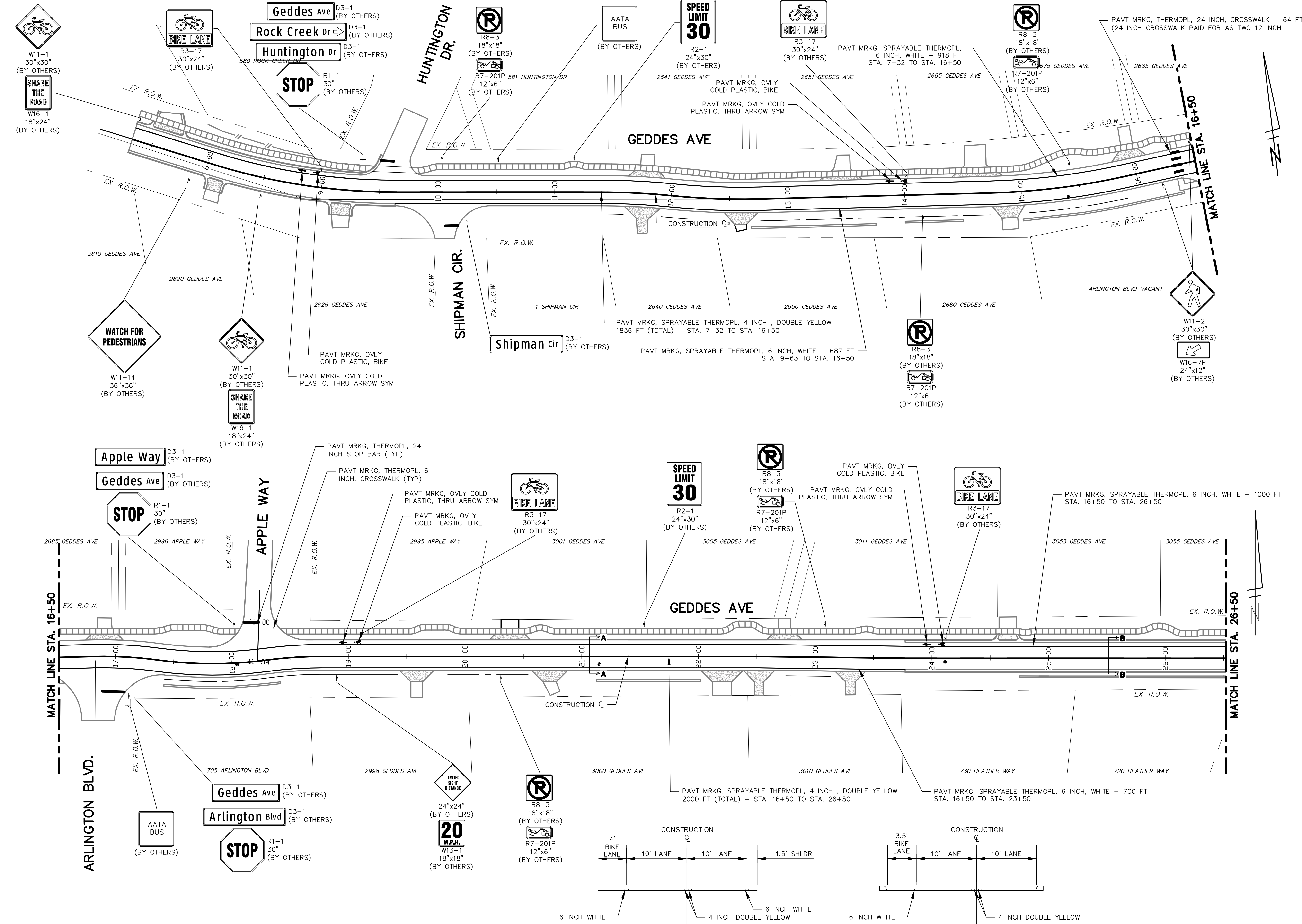
ISSUED FOR BIDS	DATE	DRAWN	CHECKED
FINAL PLAN SUBMITTAL	APR. 22, 2015	ALP/MIN	CEH
FINAL REVIEW SUBMITTAL	MAR. 26, 2015	ALP/MIN	CEH
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	JAN. 29, 2015	ALP/MIN	CEH

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PROJECT MANAGEMENT – PUBLIC SERVICES – CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
ROAD CROSS SECTIONS


SCALE
DRAWING No.
SHEET No.



SECTION A-A
STA 7+32 (P.O.B.) TO STA 23+75

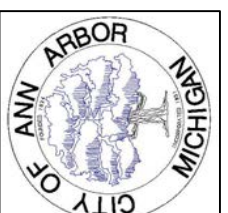
SECTION B-B
STA 23+75 TO STA 26+50

NOTE: PERMANENT SIGNS TO BE INSTALLED BY THE CITY OF ANN ARBOR SIGNS AND SIGNALS UNIT. ALL EXISTING SIGNS TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE CITY OF ANN ARBOR



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PROJECT MANAGEMENT – PUBLIC SERVICES – CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
PAVEMENT MARKINGS
STA. 7+32 (P.O.B.) TO STA. 26+50

SCALE PLAN: 1"=40'
DRAWING No. PMRKG-1
SHEET No. 144 OF 187

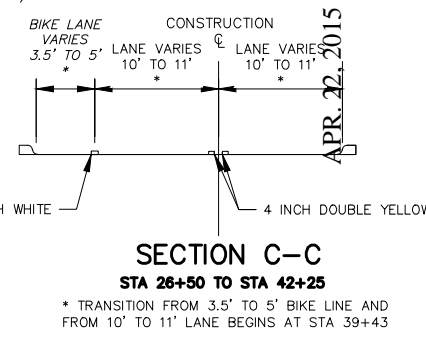
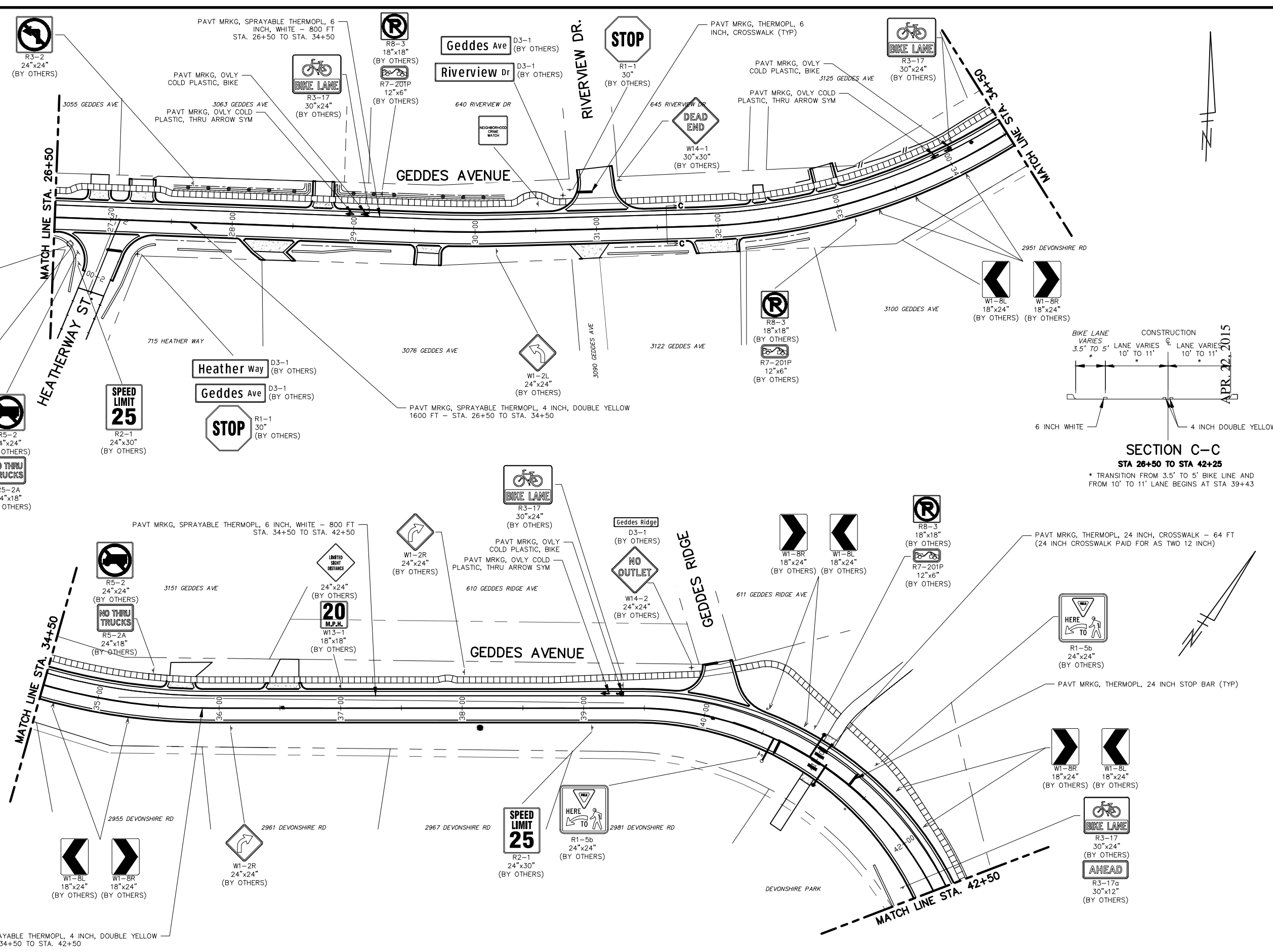


REV.	DESCRIPTION	DATE	DRAWN	CHECKED
1	ISSUED FOR BIDS	MAR. 26, 2015	ALP/ANN	CEH
2	FINAL PLAN SUBMITTAL	MAR. 13, 2015	ALP/ANN	CEH
3	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/ANN	CEH

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
PAVEMENT MARKINGS
STA. 26+50 TO STA. 42+50

SCALE: PLAN: 1"=40'
DRAWING No. PMRKG-2
SHEET No.



PAVT MRKG, SPRAYABLE THERMOPL, 4 INCH, DOUBLE YELLOW
1600 FT - STA. 34+50 TO STA. 42+50

NOTE:
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CEH
CEH
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CEH

ALP/ANN
ALP/ANN
ALP/ANN
ALP/ANN
ALP/ANN
ALP/ANN

APR. 22, 2015
MAR. 26, 2015
MAR. 13, 2015
JAN. 29, 2015

ISSUED FOR BIDS
FINAL PLAN SUBMITTAL
FINAL REVIEW SUBMITTAL
PRELIMINARY PLAN SUBMITTAL

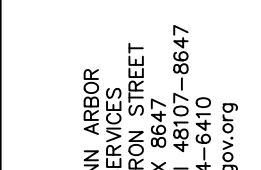
REV. DESCRIPTION

DATE

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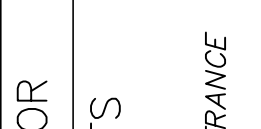
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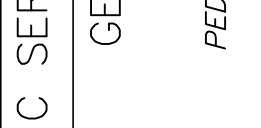
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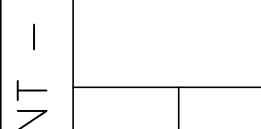
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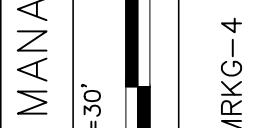
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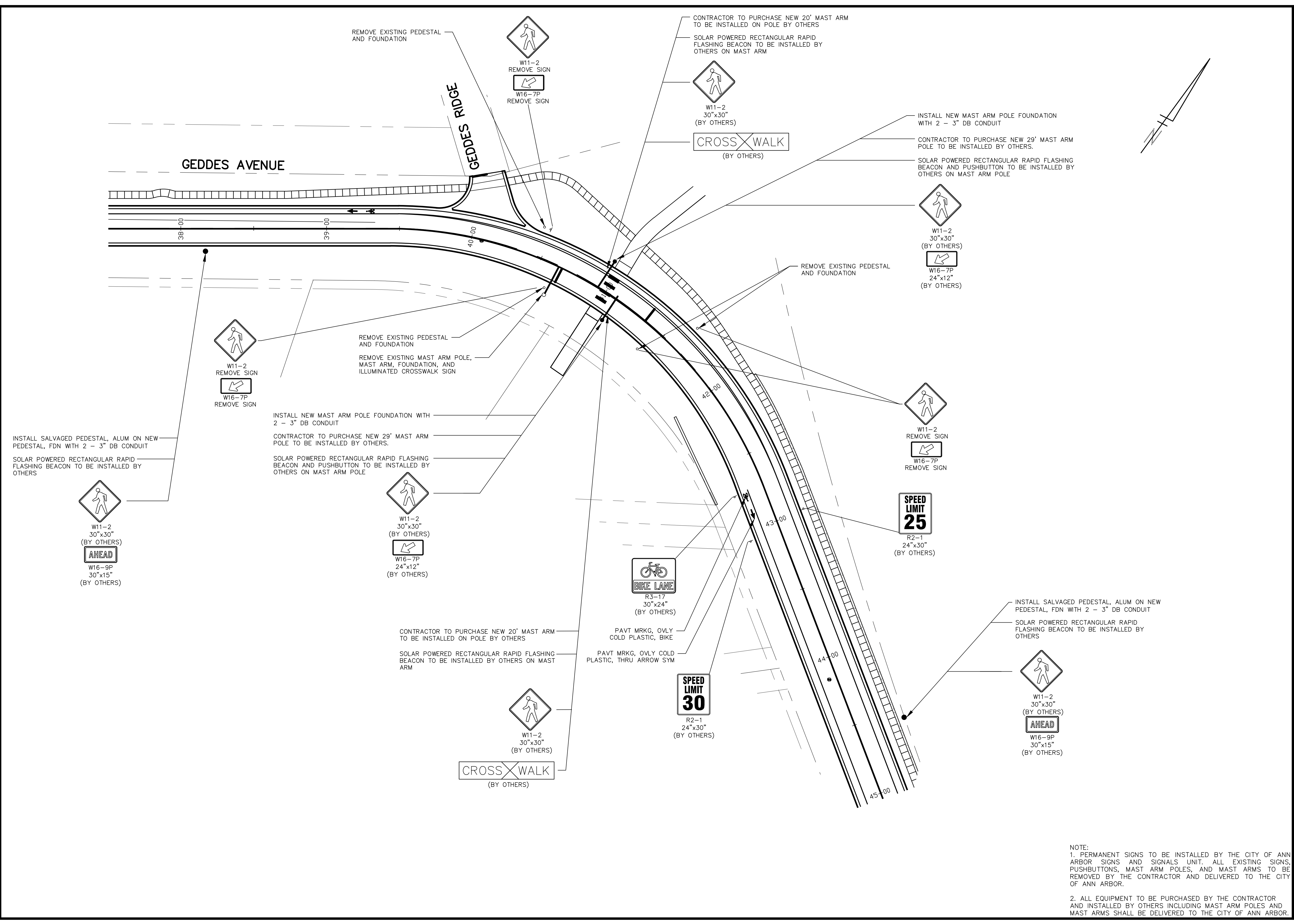


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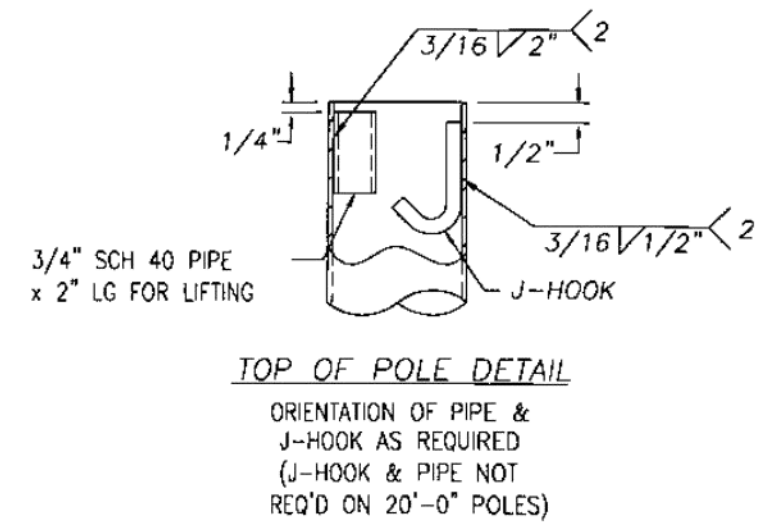
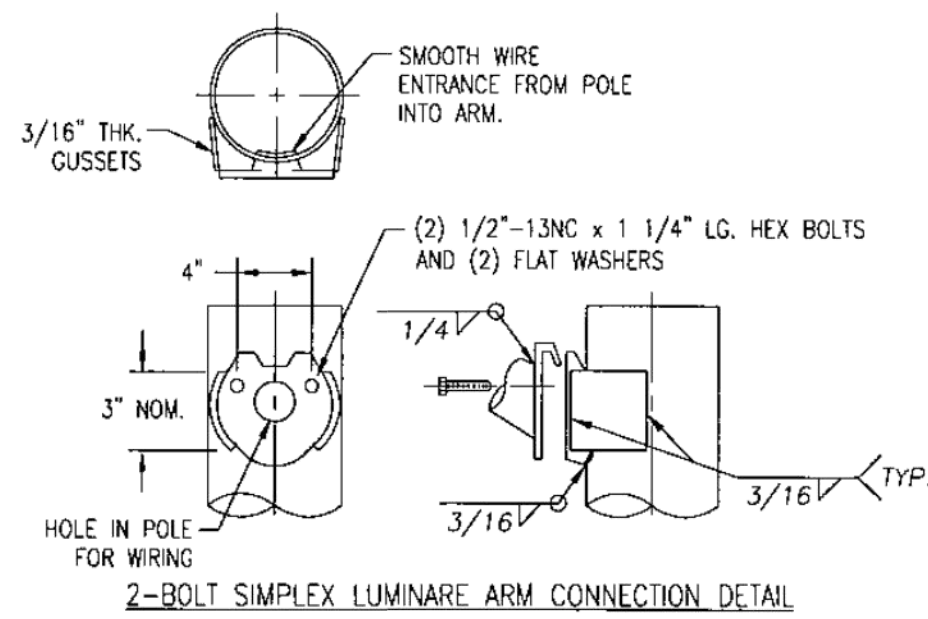
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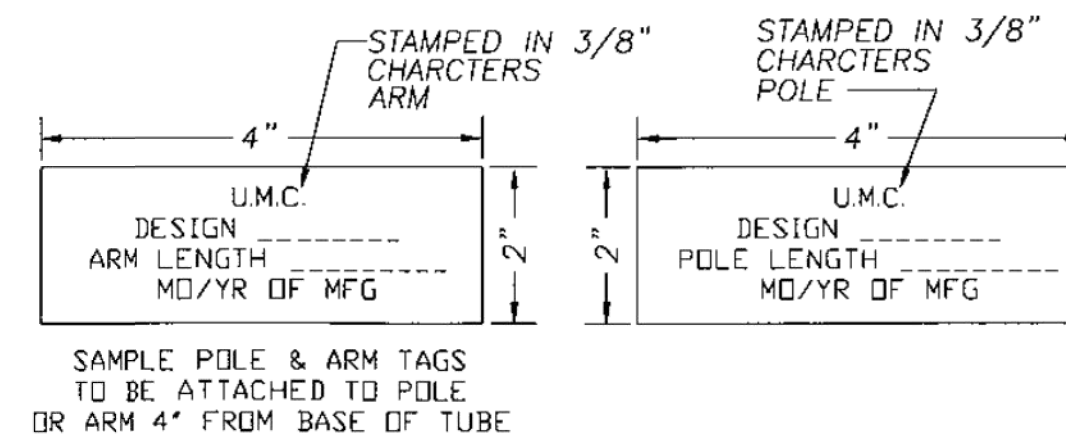
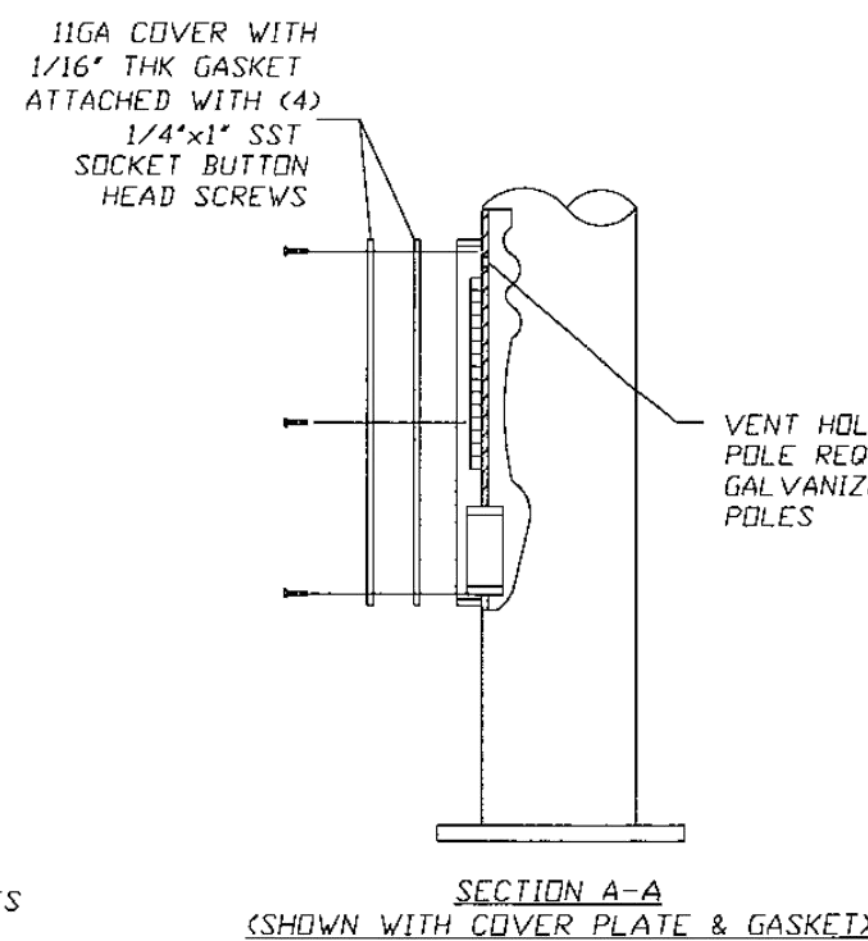
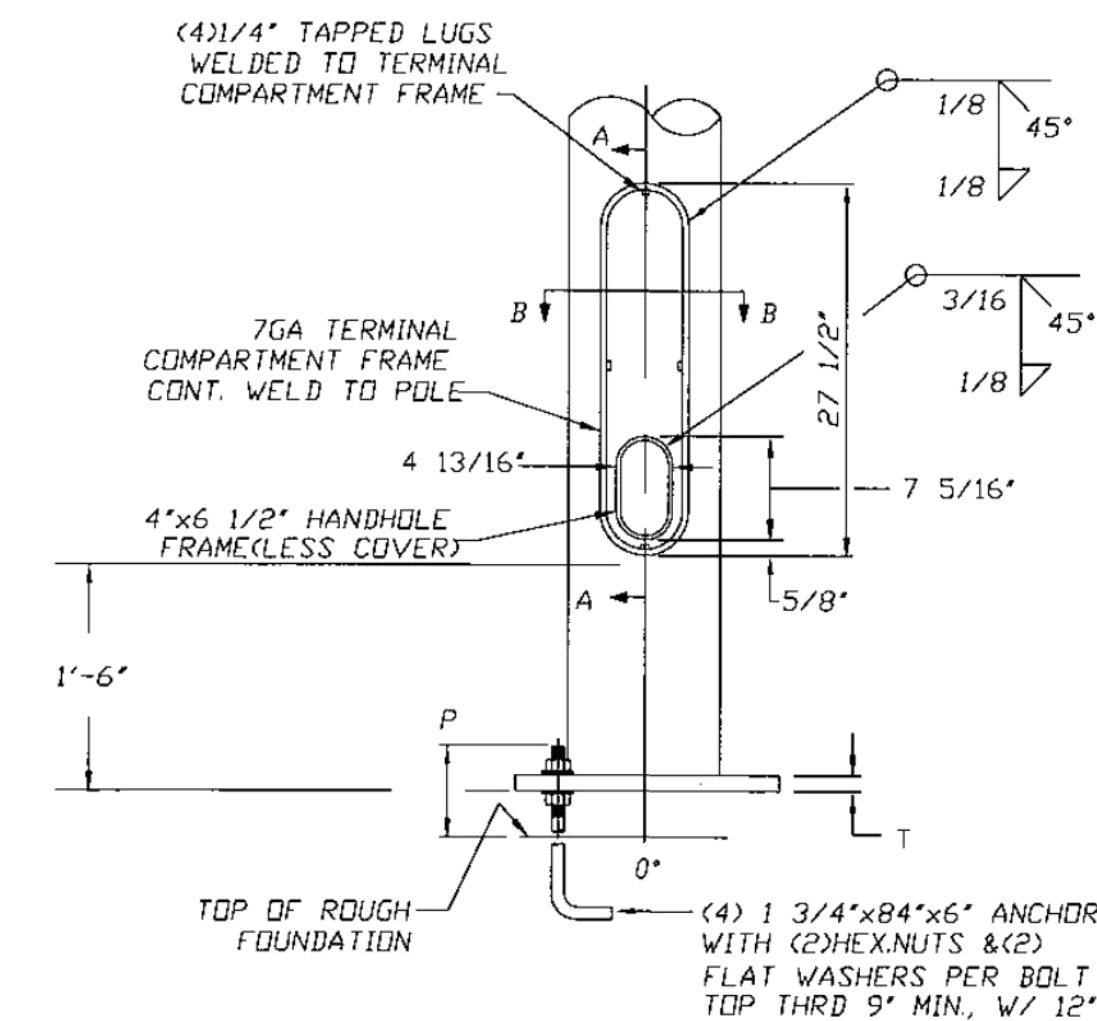
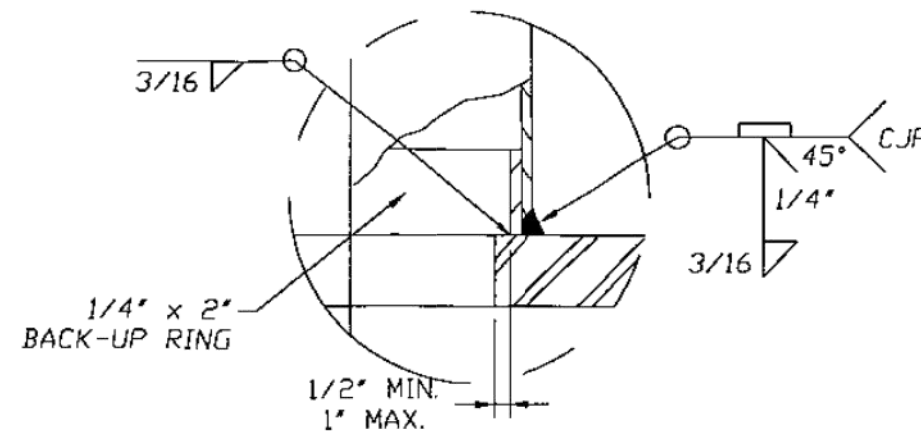
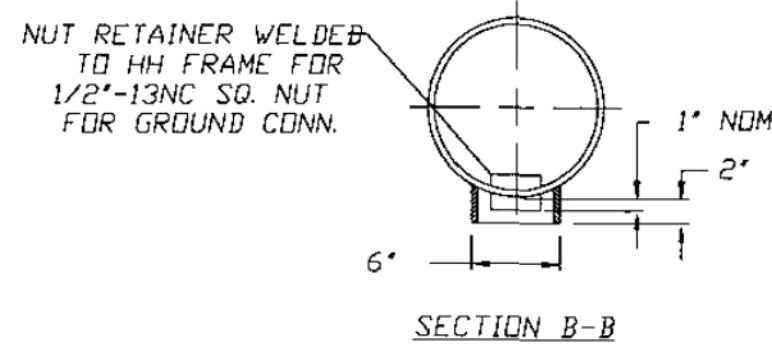
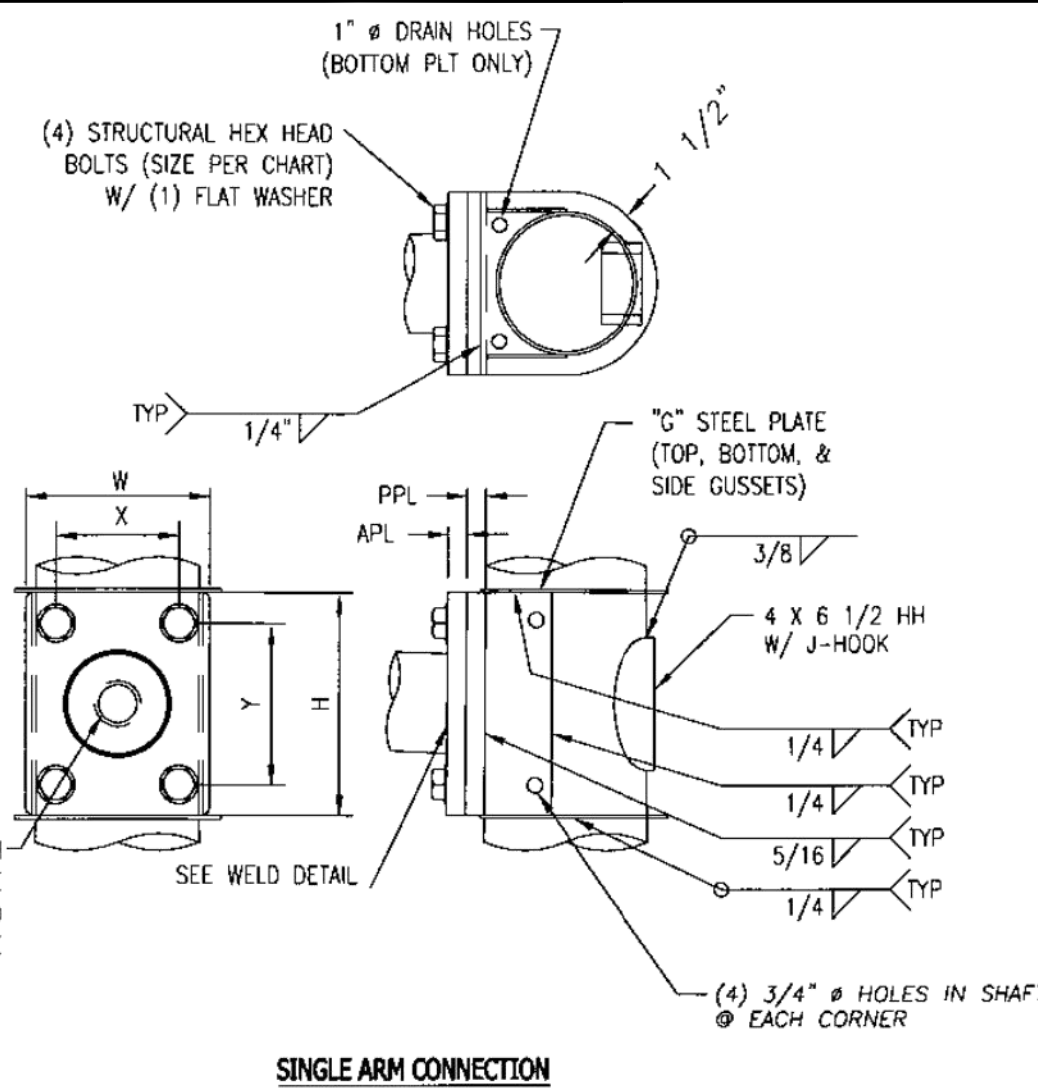


NOTE:
 1. PERMANENT SIGNS TO BE INSTALLED BY THE CITY OF ANN ARBOR SIGNS AND SIGNALS UNIT. ALL EXISTING SIGNS, PUSHBUTTONS, MAST ARM POLES, AND MAST ARMS TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE CITY OF ANN ARBOR.
 2. ALL EQUIPMENT TO BE PURCHASED BY THE CONTRACTOR AND INSTALLED BY OTHERS INCLUDING MAST ARM POLES AND MAST ARMS SHALL BE DELIVERED TO THE CITY OF ANN ARBOR.

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 SCALE PLAN: 1"=30'
 DRAWING No. PMRKG-4
 SHEET No. 147 OF 187



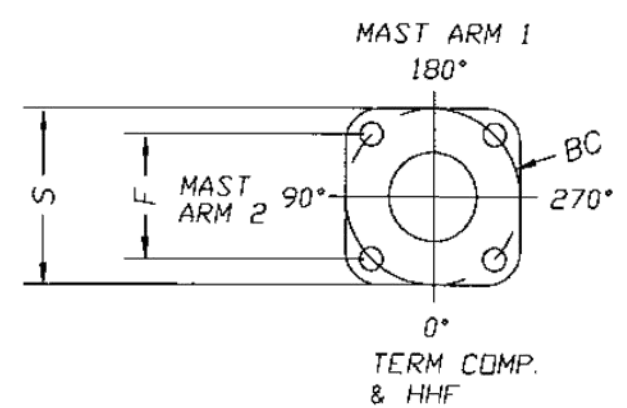
MAST ARM FLANGE CONNECTION DATA								
DESIGN NUMBER	BOLT #	X	Y	W	H	APL	PPL	G
Y3-Y9	1 1/4	9	15	14 1/2	22	1 1/2	1 1/4	1/4
Y15	1 1/2	9	15	16	20	1 1/2	1 1/2	1/4



DESIGN CRITERIA

DESIGNED IN ACCORDANCE WITH AASHTO 4TH EDITION WITH 2003 INTERIM "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS"

THE DESIGN PARAMETERS INCLUDE:
 90 MPH WIND SPEED PER FIGURE 3-2
 50 YEAR MINIMUM DESIGN LIFE PER TABLE 3-3
 FATIGUE CATEGORY III CONSIDERATION FOR:
 GALLOPING
 TRUCK GUSTS (AT 65 MPH VEHICLE VELOCITY)
 NATURAL WIND

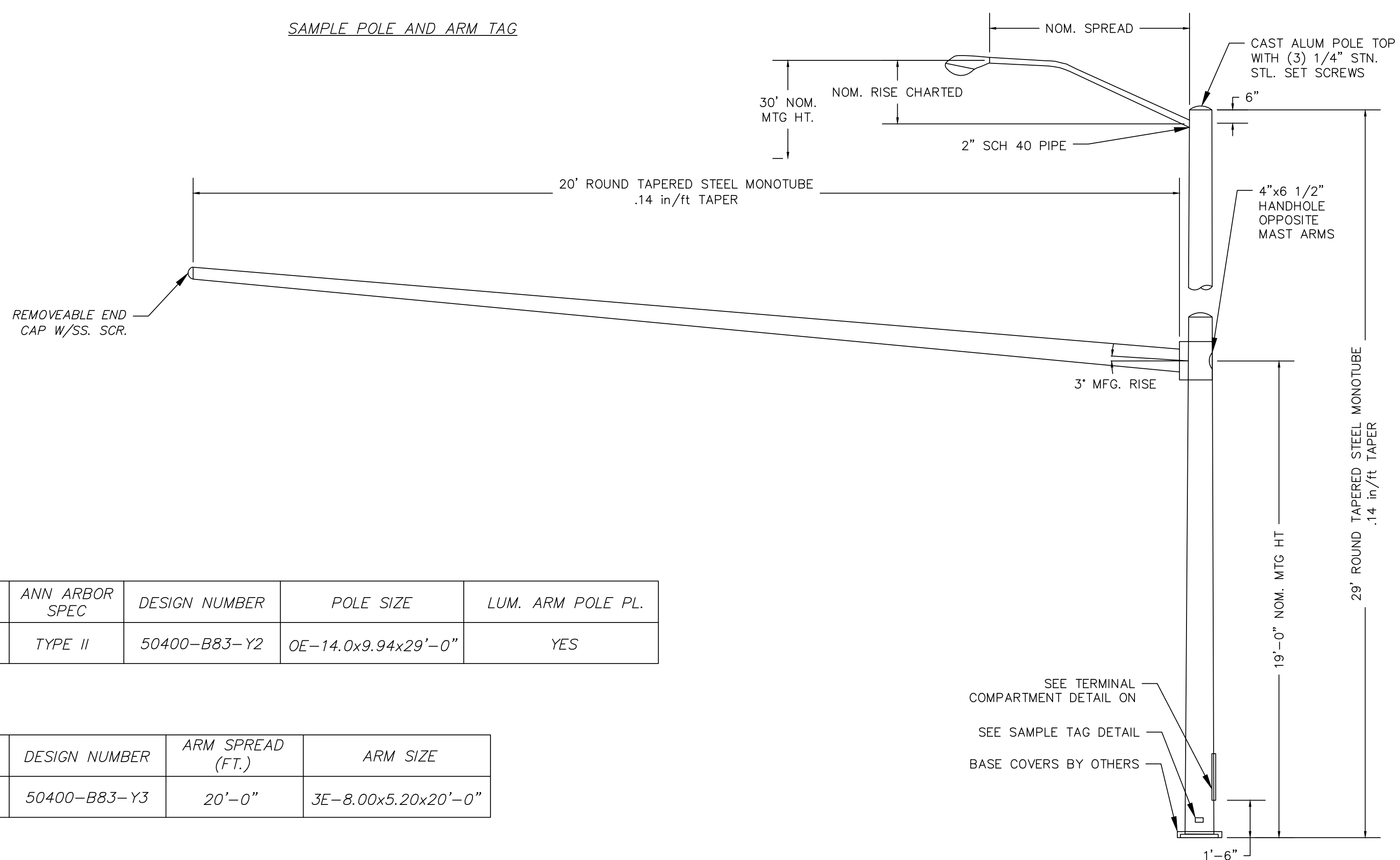


POLE #	POLE BASE CONNECTION DATA					
	B.C.	S	F	P	T	ANCHOR BOLT SIZE
14.00	18	18 1/2	12 3/4	7 1/4	1 3/4	1 3/4 x 84 x 6
15.00	24	26 1/2	17	7 1/2	2	1 3/4 x 84 x 6

MATERIAL SPECIFICATIONS	
MONOTUBES	ASTM-A595 GRA min. 23% ELONGATION or 0.230$\leq t \leq 0.3125$ ASTM-A572 GR.55 min. 21% ELONGATION or t ≤ 0.230 ASTM-A607 GR55 CLASS 2 /AKA/ ASTM-A1011 HSLAS GR55 CLASS 2 min. 22% ELONGATION (dual certification)
PLATE UNDER 1"	ASTM-A36
PLATE OVER 1"	ASTM-A572 GR. 42
HANDHOLE COVER	C1010 STEEL
HANDHOLE FRAME	ASTM A529 Gr 50 or ASTM A572 Gr 50 or ASTM A709 Gr 50
STRUCTURAL SHAPES	ASTM-A36
POLE TOP	ASTM-B26 (356F OR 43)
ANCHOR BOLTS	ASTM-A314-GR55, TOP END GALV. TO A153
A. BOLT NUTS	ASTM-A563 GR A GALV. TO A153
FLANGE BOLTS	ASTM-A449 GALV. TO A153
FL. BOLT NUTS	ASTM-A563 GR DH GALV. TO A153
FLAT WASHERS	ASTM-F436
SS-HARDWARE	AISI 300 SERIES (18-8)
FINISH-STRUCTURE	H.D. GALV.-ASTM-A123
FINISH-HARDWARE	H.D. GALV.-ASTM-A153

QTY.	ANN ARBOR SPEC	DESIGN NUMBER	POLE SIZE	LUM. ARM POLE PL.
2	TYPE II	50400-B83-Y2	OE-14.0x9.94x29'-0"	YES

QTY.	DESIGN NUMBER	ARM SPREAD (FT.)	ARM SIZE
2	50400-B83-Y3	20'-0"	3E-8.00x5.20x20'-0"



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APR. 22, 2015	MAR. 26, 2015	MAR. 13, 2015	JAN. 29, 2015					

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 GEDES AVENUE IMPROVEMENTS
 MAST ARM DETAILS

SCALE NO. SCALE
 SHEET No.
 DRAWING No.



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APR. 22, 2015
MAR. 26, 2015
MAR. 13, 2015
JAN. 29, 2015

ALP/MIN
ALP/MIN
ALP/MIN
ALP/MIN

CEH
CEH
CEH
CEH

BRANN
DATE

ISSUED FOR BIDS
FINAL PLAN SUBMITTAL
FINAL REVIEW SUBMITTAL
PRELIMINARY PLAN SUBMITTAL

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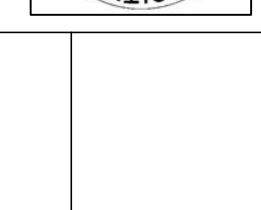
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

GEDES AVENUE IMPROVEMENTS

SOIL BORING LOGS

SCALE NO. SCALE

DRAWING No. SB-01

SHEET No.

149 OF 187

MATERIALS TESTING CONSULTANTS, INC.		LOG OF BORING		Project No.: 131495 Boring No.: B-202 Sheet: 1 of 1				
Project: Geddes Avenue Improvement Project								
Client: Hubbell, Roth & Clark, Inc.								
Location: Ann Arbor, MI								
Drill Type: CME 55								
Crew Chief: RC								
Field Eng.: AV								
Rev. By: AV								
Elevation: 855 ft.								
Datum:								
Notes: 6'S of Geddes Avenue Centerline GPS Coordinates: N=282363, E=13301327								
Date Begin: 09/24/14		Date End: 09/24/14						
Casing	HSA	3 1/4"	During	Groundwater, ft.				
Sampler	SPT	2"	End	None				
Core			Seepage	NA				
Tube			Date	Depth, ft.				
Depth Drilled: 25.0 ft.								
Plugging Rcd: Backfilled with compacted cuttings. Cave-in at 16'								
Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100% QP = Calibrated Penetrometer Reading (tons/sq.ft.)								
Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*Unified Soil Class.	*DESCRIPTION	REMARKS	QP
854.0	1					6" HMA, 1" Gravel Base		
853.0	2	S-1	1.5	5-5-8	SP	Brown poorly graded SAND; mostly fine sand, trace silt		
852.0	3							
851.0	4							
850.0	5	S-2	1.5	2-3-4	SP			
849.0	6							
848.0	7	S-3	1.5	3-6-8	SP			
847.0	8							
846.0	9							
845.0	10	S-4	1.5	2-4-8	SM	Brown silty SAND; mostly fine sand, some silty fines, trace coarse to medium sand, moist	Possible occasional coarse gravel/COBBLE 11' to 13' +/-	
844.0	11							
843.0	12							
842.0	13							
841.0	14							
840.0	15	S-5	1.5	5-7-11	SM	Grades with little fine gravel		
839.0	16							
838.0	17							
837.0	18							
836.0	19							
835.0	20	S-6	1.5	14-40-50/5'	SM		Possible occasional coarse gravel/COBBLE 17' to 23' +/-	
834.0	21							
833.0	22							
832.0	23							
831.0	24							
830.0	25	S-7	1.5	5-9-14	SP-SM	Brown poorly graded SAND with silt, mostly fine sand, few silty fines, moist		
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
End of Boring at 25.0'								
* Visual estimate following ASTM D 2488 unless laboratory testing has been performed								

MATERIALS TESTING CONSULTANTS, INC.		LOG OF BORING		Project No.: 131495 Boring No.: B-201 Sheet: 1 of 1				
Project: Geddes Avenue Improvement Project								
Client: Hubbell, Roth & Clark, Inc.								
Location: Ann Arbor, MI								
Drill Type: CME 55								
Crew Chief: RC								
Field Eng.: AV								
Rev. By: AV								
Elevation: 841.2 ft.								
Datum:								
Notes: South of Geddes Avenue Centerline GPS Coordinates: N=282351, E=13301017								
Date Begin: 09/23/14		Date End: 09/23/14						
Casing	HSA	3 1/4"	During	Groundwater, ft.				
Sampler	SPT	2"	End	NA				
Core			Seepage	NA				
Tube			Date	Depth, ft.				
Depth Drilled: 35.0 ft.								
Plugging Rcd: Backfilled with compacted cuttings. Cave-in at 28'								
Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100% QP = Calibrated Penetrometer Reading (tons/sq.ft.)								
Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*Unified Soil Class.	*DESCRIPTION	REMARKS	QP
840.2	1					5" HMA		
839.2	2	S-1	0.6	9-50/4"	SP-SM	Brown poorly graded SAND; mostly coarse to fine sand, trace fine gravel, few silty fines	S-1 Poor sampler on possible coarse gravel/COBBLE	
838.2	3							
837.2	4							
836.2	5	S-2	0.2	2-2-3	SP-SM		S-2, S-5 Poor recovery, possible coarse gravel/COBBLE	
835.2	6							
834.2	7	S-3	1.2	3-4-4	SP-SM			
833.2	8							
832.2	9							
831.2	10	S-4	1.4	4-4-5	SP-SM	Grades with coarse to fine gravel		
830.2	11							
829.2	12							
828.2	13							
827.2	14							
826.2	15	S-5	0.6	10-26-35	SP-SM			
825.2	16							
824.2	17							
823.2	18							
822.2	19							
821.2	20	S-6	1.5	10-16-18	ML	Brown SILT, mostly silty fines, few fine sand, wet		
820.2	21							
819.2	22							
818.2	23							
817.2	24							
816.2	25	S-7	1.5	12-19-23	ML	Grades grey		
815.2	26							
814.2	27							
813.2	28							
812.2	29							
811.2	30	S-8	1.5	11-16-23	ML			
810.2	31							
809.2	32							
808.2	33							
807.2	34							
806.2	35	S-9	1.5	15-23-24	ML			
36								
37								
38								
39								
40								
End of Boring at 35.0'								
* Visual estimate following ASTM D 2488 unless laboratory testing has been performed								

MATERIALS TESTING CONSULTANTS, INC.		LOG OF BORING		Project No.: 131495 Boring No.: B-200 Sheet: 1 of 1				
Project: Geddes Avenue Improvement Project								
Client: Hubbell, Roth & Clark, Inc.								
Location: Ann Arbor, MI								
Drill Type: CME 55								
Crew Chief: RC								
Field Eng.: AV								
Rev. By: AV								
Elevation: 851.7 ft.								
Datum:								
Notes: 7'S of Geddes Avenue Centerline GPS Coordinates: N=282338, E=13300752								
Date Begin: 09/23/14		Date End: 09/23/14						
Casing	HSA	3 1/4"	During	Groundwater, ft.				
Sampler	SPT	2"	End	15.0				
Core			Seepage	16.0				
Tube			Date	Depth, ft.				
Depth Drilled: 30.0 ft.								
Plugging Rcd: Backfilled with compacted cuttings. Cave-in at 16'								
Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100% QP = Calibrated Penetrometer Reading (tons/sq.ft.)								
Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*Unified Soil Class.	*DESCRIPTION	REMARKS	QP
850.7	1					5" HMA, 1" Gravel Base		
849.7	2	S-1	1.5	3-6-6	SP	Brown poorly graded SAND; mostly fine sand, moist		
848.7	3							
847.7	4							
846.7	5	S-2	1.5	5-3-3	SP			
845.7	6							
844.7	7	S-3	1.5	3-8-12	SP	Grades with trace coarse to medium sand	8 +/-	
843.7	8							
842.7	9							
841.7	10	S-4	1.5	7-4-11	SC	Brown clayey SAND; mostly coarse to fine sand, little clayey fines, moist	12 +/-	
840.7	11							
839.7	12							
838.7	13							
837.7	14							
836.7	15	S-5	1.5	5-11-16	SM	Brown silty SAND; mostly fine sand, some silty fines, wet with silt seams	17 +/-	
835.7	16							
834.7	17							
833.7	18							
832.7	19							
831.7	20	S-6	1.5	5-15-19	ML	Gray sandy SILT; mostly silty fines, little fine sand, wet		
830.7	21							
829.7	22							
828.7	23							
827.7	24							
826.7	25	S-7	1.5	10-15-21	ML			
825.7	26							
824.7	27							
823.7	28							
822.7	29							
821.7	30	S-8	1.5	12-18-24	ML			
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
End of Boring at 30.0'								
* Visual estimate following ASTM D 2488 unless laboratory testing has been performed								



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GEDES AVENUE IMPROVEMENTS

SCALE NO. SCALE
DRAWING No. SB-03

SHEET No.

SOIL BORING LOGS

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MATERIALS TESTING CONSULTANTS, INC.		LOG OF BORING		Project No.: 131495 Boring No.: B-208 Sheet: 1 of 1				
Project: Geddes Avenue Improvement Project								
Client: Hubbell, Roth & Clark, Inc.								
Location: Ann Arbor, MI								
Drill Type: CME 55								
Crew Chief: RC								
Field Eng.: AV								
Rev. By: AV								
Elevation: 765.6 ft.								
Datum:								
Notes: 5'S of Geddes Avenue Centerline GPS Coordinates: N=282894, E=13303545								
Date Begin: 09/25/14		Date End: 09/25/14						
Type		Dia.		Groundwater, ft.				
Casing	HSA	3 1/4"	During	8 +/-, 17 +/-				
Sampler	SPT	2"	End	None				
Core			Seepage					
Tube			Date	Depth, ft.				
Depth Drilled: 25.0 ft.								
Plugging Rcd: Backfilled with compacted cuttings. Cave-in at 18.4'								
Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100% QP = Calibrated Penetrometer Reading (tons/sq ft.)								
Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*Unified Soil Class.	*DESCRIPTION	REMARKS	QP
774.6	1					8" HMA, 3" Gravel Base		
763.6	2	S-1	1.5	10-11-11	SP-SM	Brown poorly graded SAND with silt; mostly coarse to fine sand, few silty fines, few fine gravel, moist seams		
762.6	3							
761.6	4							
760.6	5	S-2	1.5	5-5-5	SP-SM	Grades with clayey sand lenses		
759.6	6							
758.6	7	S-3	0.2	5-6-8	SP-SM			
757.6	8							
756.6	9							
755.6	10	S-4	1.5	3-4-5	CL	Brown lean CLAY; mostly clayey fines, few fine sand, moist with wet sand seams		1.0
754.6	11							
753.6	12							
752.6	13							
751.6	14							
750.6	15	S-5	1.0	3-6-7	SP	Brown poorly graded SAND; mostly coarse to fine sand, moist		
749.6	16							
748.6	17							
747.6	18							
746.6	19							
745.6	20	S-6	1.5	3-4-4	SP	Grades wet		
744.6	21							
743.6	22							
742.6	23							
741.6	24							
740.6	25	S-7	1.5	2-3-4	SP			
739.2	26							
738.2	27							
737.2	28							
736.2	29							
735.2	30							
734.2	31							
733.2	32							
732.2	33							
731.2	34							
730.2	35							
729.2	36							
728.2	37							
727.2	38							
726.2	39							
725.2	40							
End of Boring at 25.0'								
* Visual estimate following ASTM D 2488 unless laboratory testing has been performed								

MATERIALS TESTING CONSULTANTS, INC.		LOG OF BORING		Project No.: 131495 Boring No.: B-207 Sheet: 1 of 1				
Project: Geddes Avenue Improvement Project								
Client: Hubbell, Roth & Clark, Inc.								
Location: Ann Arbor, MI								
Drill Type: CME 55								
Crew Chief: RC								
Field Eng.: AV								
Rev. By: AV								
Elevation: 764.2 ft.								
Datum:								
Notes: 5'S of Geddes Avenue Centerline GPS Coordinates: N=282941, E=13303385								
Date Begin: 09/25/14		Date End: 09/25/14						
Type		Dia.		Groundwater, ft.				
Casing	HSA	3 1/4"	During	17 +/-				
Sampler	SPT	2"	End	18.5				
Core			Seepage					
Tube			Date	Depth, ft.				
Depth Drilled: 25.0 ft.								
Plugging Rcd: Backfilled with compacted cuttings. Cave-in at 20'								
Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100% QP = Calibrated Penetrometer Reading (tons/sq ft.)								
Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*Unified Soil Class.	*DESCRIPTION	REMARKS	QP
763.2	1					8" HMA, 2" Gravel Base		
762.2	2	S-1	1.5	6-6-7	SP-SM	Brown poorly graded SAND with silt; mostly coarse to fine sand, few silty fines, few fine gravel, moist with clay sand seams		
761.2	3							
760.2	4							
759.2	5	S-2	1.5	6-6-8	SP-SM			
758.2	6							
757.2	7	S-3	1.5	2-3-3	SP-SM			
756.2	8							
755.2	9							
754.2	10	S-4	1.5	3-4-5	SP-SM			
753.2	11							
752.2	12							
751.2	13							
750.2	14							
749.2	15	S-5	0.4	4-4-4	SP-SM		S-5 Poor recovery, possible coarse gravel/COBBLE	
748.2	16							
747.2	17							
746.2	18							
745.2	19							
744.2	20	S-6	1.5	1-2-3	SC	Brown clayey SAND; mostly coarse to fine sand, some clayey fines, wet		
743.2	21							
742.2	22							
741.2	23							
740.2	24							
739.2	25	S-7	1.5	2-3-4	SC			
738.2	26							
737.2	27							
736.2	28							
735.2	29							
734.2	30							
733.2	31							
732.2	32							
731.2	33							
730.2	34							
729.2	35							
728.2	36							
727.2	37							
726.2	38							
725.2	39							
724.2	40							
End of Boring at 25.0'								
* Visual estimate following ASTM D 2488 unless laboratory testing has been performed								

MATERIALS TESTING CONSULTANTS, INC.		LOG OF BORING		Project No.: 131495 Boring No.: B-206 Sheet: 1 of 1				
Project: Geddes Avenue Improvement Project								
Client: Hubbell, Roth & Clark, Inc.								
Location: Ann Arbor, MI								
Drill Type: CME 55								
Crew Chief: RC								
Field Eng.: AV								
Rev. By: AV								
Elevation: 778.5 ft.								
Datum:								
Notes: 6'S of Geddes Avenue Centerline GPS Coordinates: N=282936, E=13303001								
Date Begin: 09/25/14		Date End: 09/25/14						
Type		Dia.		Groundwater, ft.				
Casing	HSA	3 1/4"	During	9.0, 14.8				
Sampler	SPT	2"	End	15.3				
Core			Seepage	14.8				
Tube			Date	Depth, ft.				
Depth Drilled: 20.0 ft.								
Plugging Rcd: Backfilled with compacted cuttings. Cave-in at 16'								
Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100% QP = Calibrated Penetrometer Reading (tons/sq ft.)								
Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*Unified Soil Class.	*DESCRIPTION	REMARKS	QP
777.5	1					7" HMA, 3" Gravel Base		
776.5	2	S-1	1.5	3-4-4	SP-SM	Brown poorly graded SAND with silt; mostly coarse to fine sand, few silty fines, moist		
775.5	3							
774.5	4							
773.5	5	S-2	1.5	2-3-3	SM	Brown silty SAND; mostly fine sand, little silty fines, moist		
772.5	6							
771.5	7	S-3	1.5	3-5-7	SM			
770.5	8							
769.5	9					Grades wet		
768.5	10	S-4	1.5	3-6-7	CL	Brown lean CLAY; mostly clayey fines, moist		1.5
767.5	11							
766.5	12							
765.5	13							
764.5	14							
763.5	15	S-5	1.5	2-3-4	CL	Grades gray with wet sandy silt seams		1.0
762.5	16							
761.5	17							
760.5	18							
759.5	19							
758.5	20	S-6	1.5	3-4-4	CL			1.5
757.5	21							
756.5	22							
755.5	23							
754.5	24							
753.5	25							
752.5	26							
751.5	27							
750.5	28							
749.5	29							
748.5	30							
747.5	31							
746.5	32							
745.5	33							
744.5	34							
743.5	35							
742.5	36							
741.5	37							
740.5	38							
739.5	39							
738.5	40							
End of Boring at 20.0'								
* Visual estimate following ASTM D 2488 unless laboratory testing has been performed								

MATERIALS TESTING CONSULTANTS, INC.		LOG OF BORING		Project No.: 131495 Boring No.: B-209 Sheet: 1 of 1				
Project: Geddes Avenue Improvement Project								
Client: Hubbell, Roth & Clark, Inc.								
Location: Ann Arbor, MI								
Drill Type: CME 55								
Crew Chief: BD								
Field Eng.: TH								
Rev. By: AV								
Elevation: 769 ft. +/-								
Datum:								
Notes: STA 48+50, 13N of Geddes Avenue CL								
		Date Begin: 12/04/14		Date End: 12/04/14				
Casing	Type	Dia.	Groundwater, ft.					
HSA		4 1/4"	22 +/-					
Sampler	SPT	2"	End	NA				
Core			Seepage					
Tube			Date	Depth, ft.				
Depth Drilled: 40.0 ft.			Plugging Rcrd: Backfilled with compacted cuttings. Cave-in at 16.0'.					
Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100% QP = Calibrated Penetrometer Reading (tons/sq. ft.)								
Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*Unified Soil Class	*DESCRIPTION	REMARKS	QP
769	1					3" HMA, 7" Gravel		
767	2	S-1	1.5	5-6-10	SP	Brown poorly graded SAND, mostly coarse to fine sand, few coarse to fine gravel, moist		
766	3							
765	4							
764	5	S-2	0.7	4-4-5	SP		S-2 Poor recovery, drove on rock	
763	6							
762	7	S-3	1.5	7-18-19	SP			
761	8							
760	9							
759	10	S-4	1.0	5-12-14	SP		S-4 Poor recovery, possible coarse gravel or COBBLE	
758	11							
757	12							
756	13							
755	14							
754	15	S-5	0.9	5-7-15	SP		S-5 Poor recovery, possible coarse gravel or COBBLE	
753	16							
752	17							
751	18							
750	19							
749	20	S-6	1.5	7-6-6	SP			
748	21							
747	22							
746	23							
745	24							
744	25	S-7	1.5	4-6-7	SP	Trace fine gravel, wet		
743	26							
742	27							
741	28							
740	29							
739	30	S-8	1.5	5-9-8	SP			
738	31							
737	32							
736	33							
735	34							
734	35	S-9	1.5	5-6-6	SP	Trace silty fines		
733	36							
732	37							
731	38							
730	39							
729	40	S-10	1.5	5-6-10	SP			

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed

MATERIALS TESTING CONSULTANTS, INC.		LOG OF BORING		Project No.: 131495 Boring No.: B-210 Sheet: 1 of 1				
Project: Geddes Avenue Improvement Project								
Client: Hubbell, Roth & Clark, Inc.								
Location: Ann Arbor, MI								
Drill Type: CME 55								
Crew Chief: BD								
Field Eng.: TH								
Rev. By: AV								
Elevation: 766 ft. +/-								
Datum:								
Notes: STA 50+50, 13N of Geddes Avenue CL								
		Date Begin: 12/04/14		Date End: 12/04/14				
Casing	Type	Dia.	Groundwater, ft.					
HSA		4 1/4"	17 +/-					
Sampler	SPT	2"	End	NA				
Core			Seepage					
Tube			Date	Depth, ft.				
Depth Drilled: 40.0 ft.			Plugging Rcrd: Backfilled with compacted cuttings. Cave-in at 20.0'.					
Component Percentages: Trace < 5%, Few 5-10%, Little 15-25%, Some 30-45%, Mostly 50-100% QP = Calibrated Penetrometer Reading (tons/sq. ft.)								
Elev. FT.	Depth FT.	Sample Number	Recov. FT.	Penetration (Blows Per 6") ASTM D 1586	*Unified Soil Class	*DESCRIPTION	REMARKS	QP
766	1					3" Asphalt, 4" Gravel		
764	2	S-1	1.5	5-10-17	SP	Brown poorly graded SAND, mostly coarse to fine sand, few coarse to fine gravel, moist		
763	3							
762	4						Hard drilling from 4.0' to 11.0'	
761	5	S-2	1.5	8-13-13	SP			
760	6							
759	7	S-3	0.8	8-14-18	SP		S-3 Poor recovery, possible coarse gravel or COBBLE	
758	8							
757	9							
756	10	S-4	1.5	15-17-14	SP			
755	11							
754	12							
753	13							
752	14							
751	15	S-5	1.5	5-7-10	SP			
750	16							
749	17							
748	18							
747	19							
746	20	S-6	1.0	4-7-10	SP	Wet	S-6 Poor recovery, possible coarse gravel or COBBLE	
745	21							
744	22							
743	23							
742	24							
741	25	S-7	1.5	4-5-6	SP			
740	26							
739	27							
738	28							
737	29							
736	30	S-8	0.7	4-4-4	SP		S-8 Poor recovery, possible coarse gravel or COBBLE	
735	31							
734	32							
733	33							
732	34							
731	35	S-9	1.5	5-10-12	SP			
730	36							
729	37							
728	38							
727	39							
726	40	S-10	1.5	9-5-4	SP			

* Visual estimate following ASTM D 2488 unless laboratory testing has been performed



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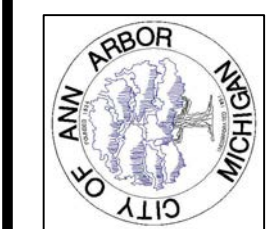
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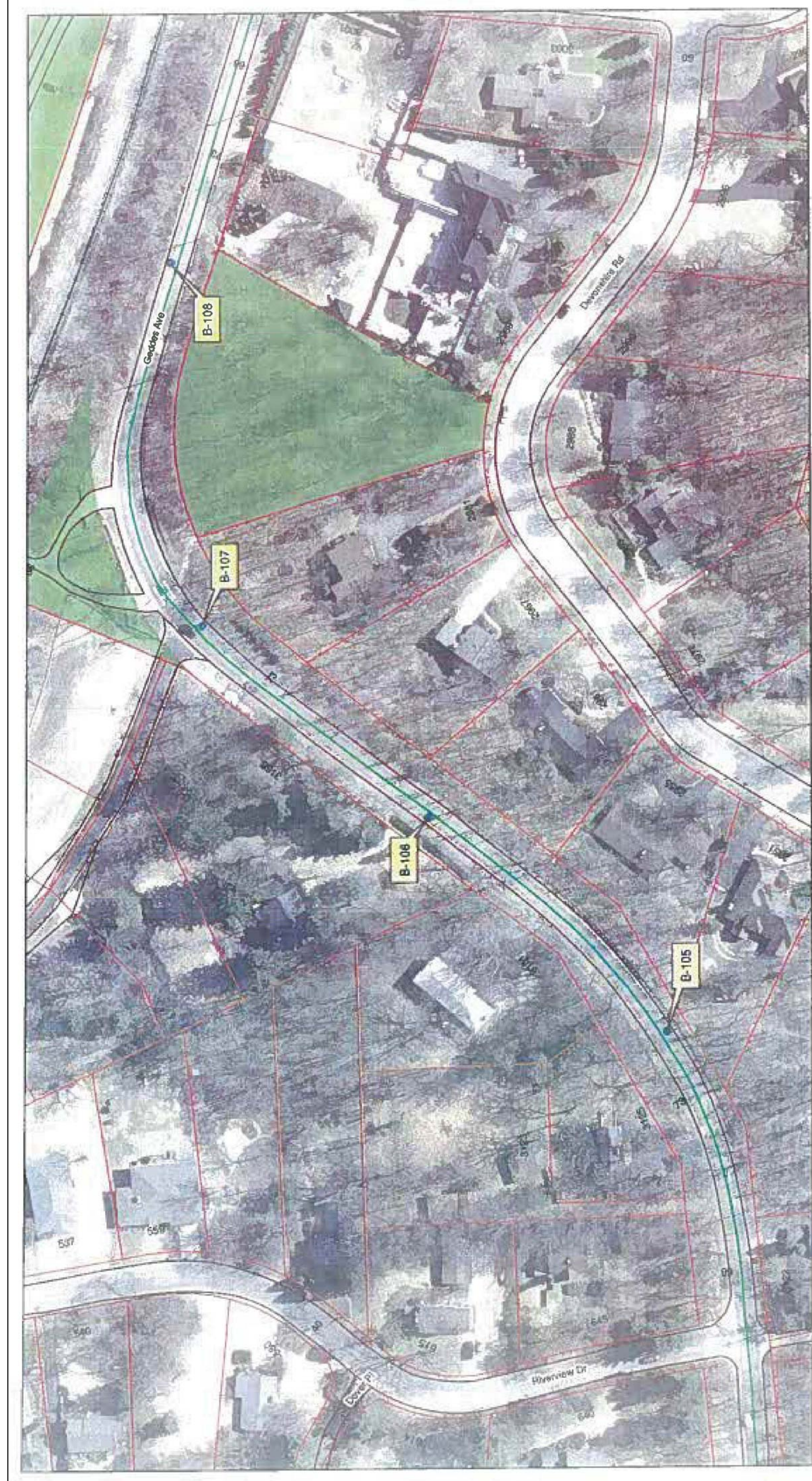
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SOIL BORING LOGS

SCALE NO. SCALE
DRAWING No. SB-04

SHEET No.

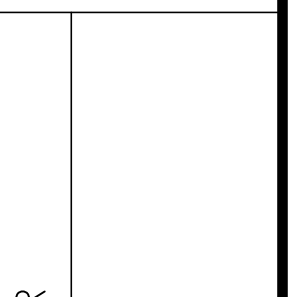


MAP NOTES:
 THE SOIL BORING LOCATION MAPS SHOWN ON THIS SHEET ARE REFERENCED FROM PROFESSIONAL SERVICE INDUSTRIES (PSI) JOB NUMBER 0381411-2, COMPLETED IN NOVEMBER, 2011.



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
	ISSUED FOR BIDS	APR. 22, 2015	ALP/MIN	CEH
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	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/MIN	CEH
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 GEDDES AVENUE IMPROVEMENTS

SOIL BORING MAP
 B-101 TO B-110

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 DRAWING No. SB-05
 SHEET No.

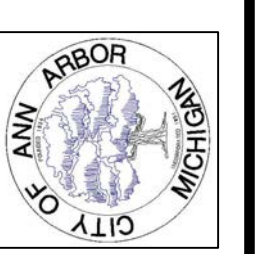


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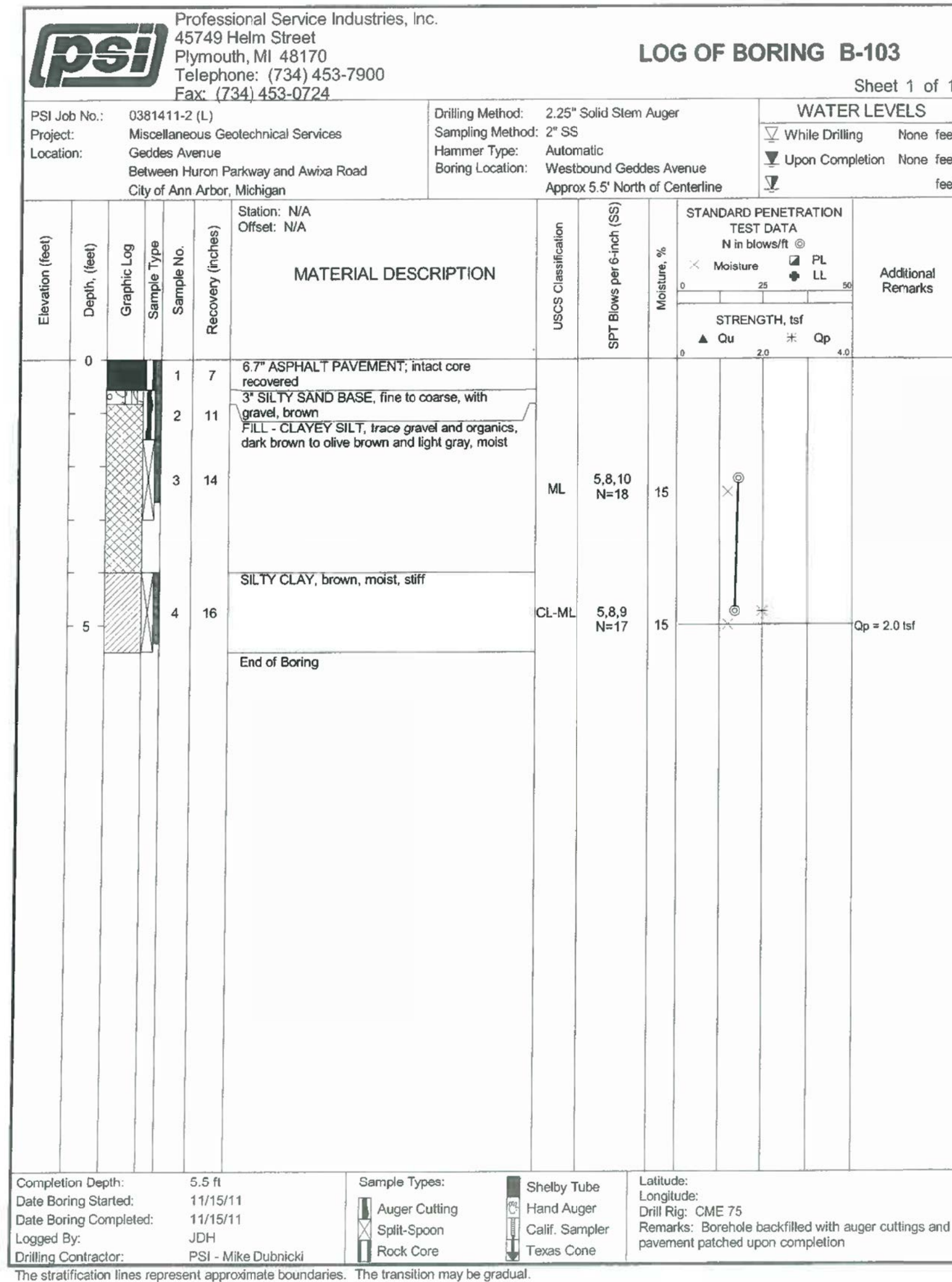
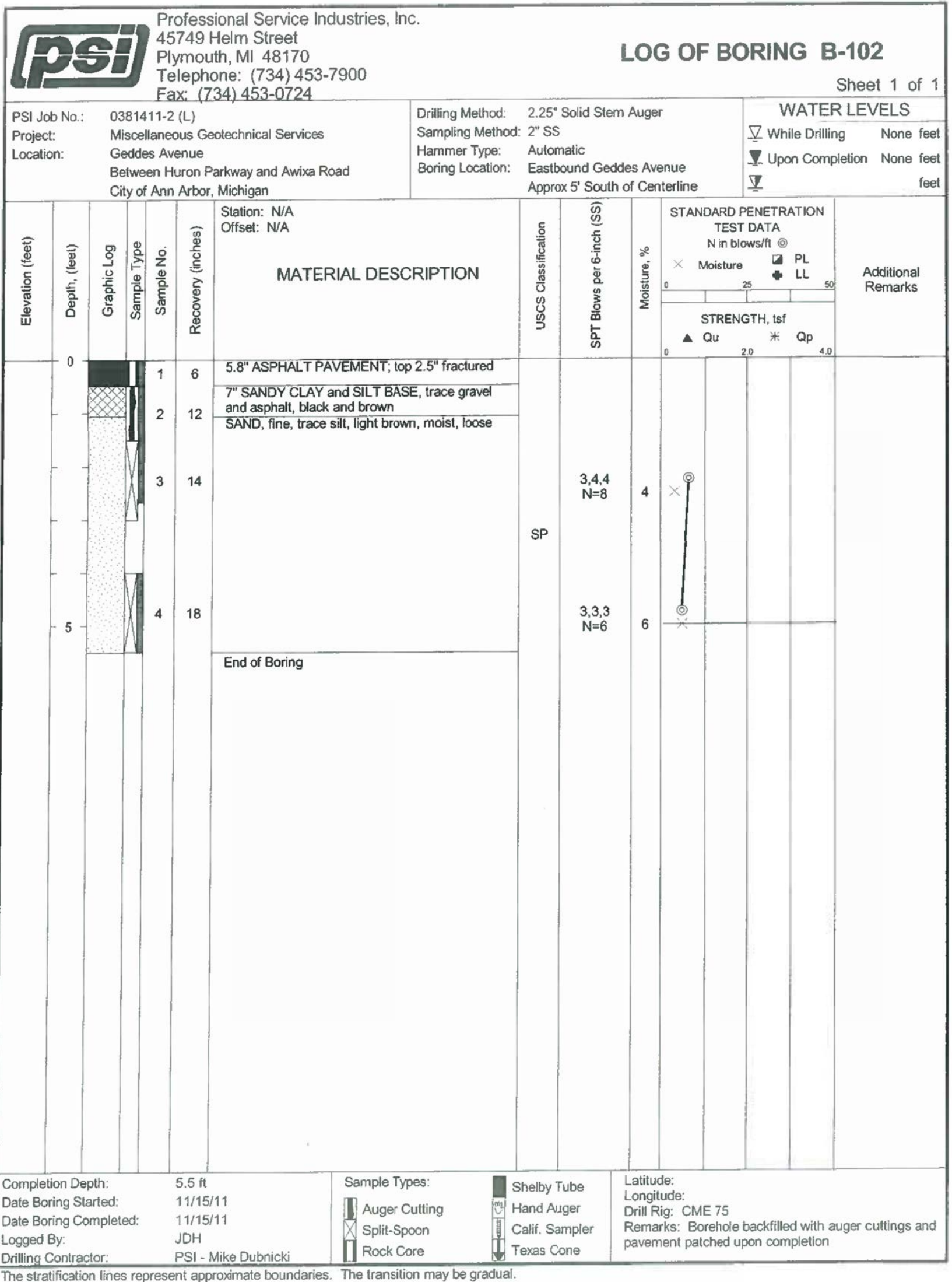
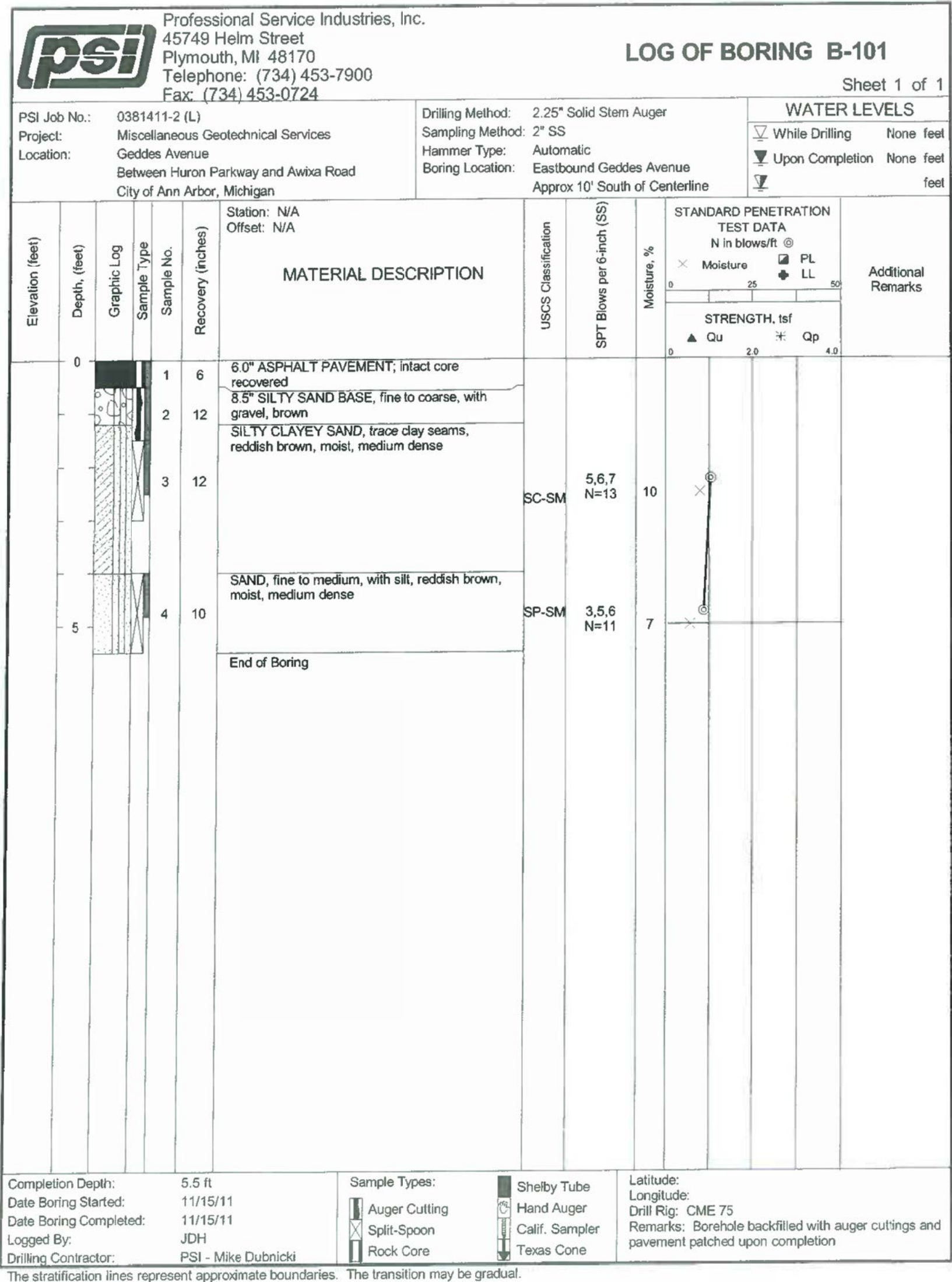
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GEDES AVENUE IMPROVEMENTS
SOIL BORING LOGS

SCALE NO. SCALE
DRAWING No. SB-06

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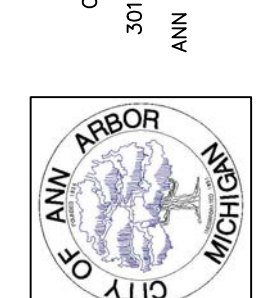


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APR. 22, 2015	ALP/MIN	CEH	CHECKED
MAR. 26, 2015	ALP/MIN	CEH	
MAR. 13, 2015	ALP/MIN	CEH	
JAN. 29, 2015	ALP/MIN	CEH	
DATE	BRANN		

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	PRELIMINARY PLAN SUBMITTAL		

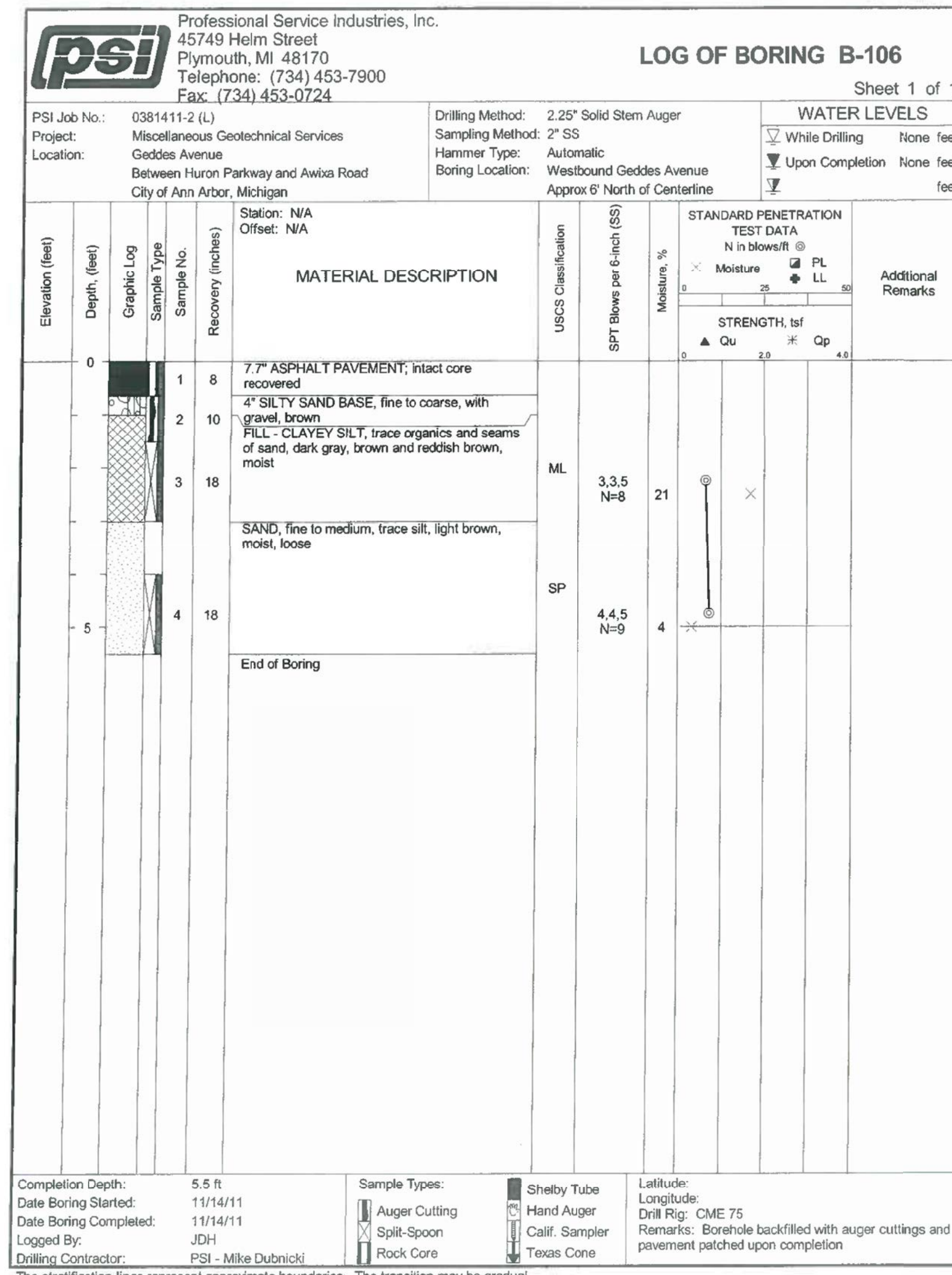
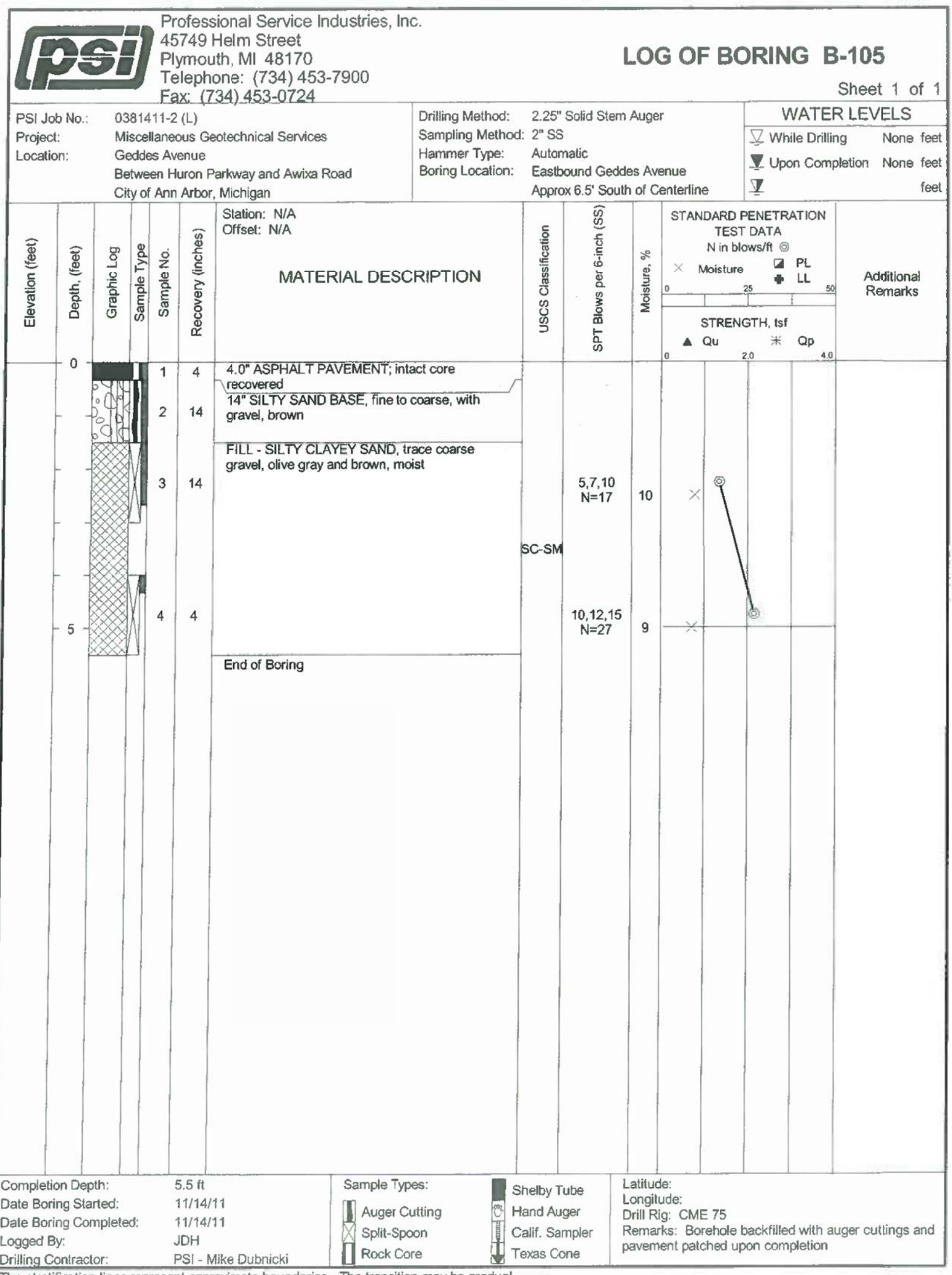
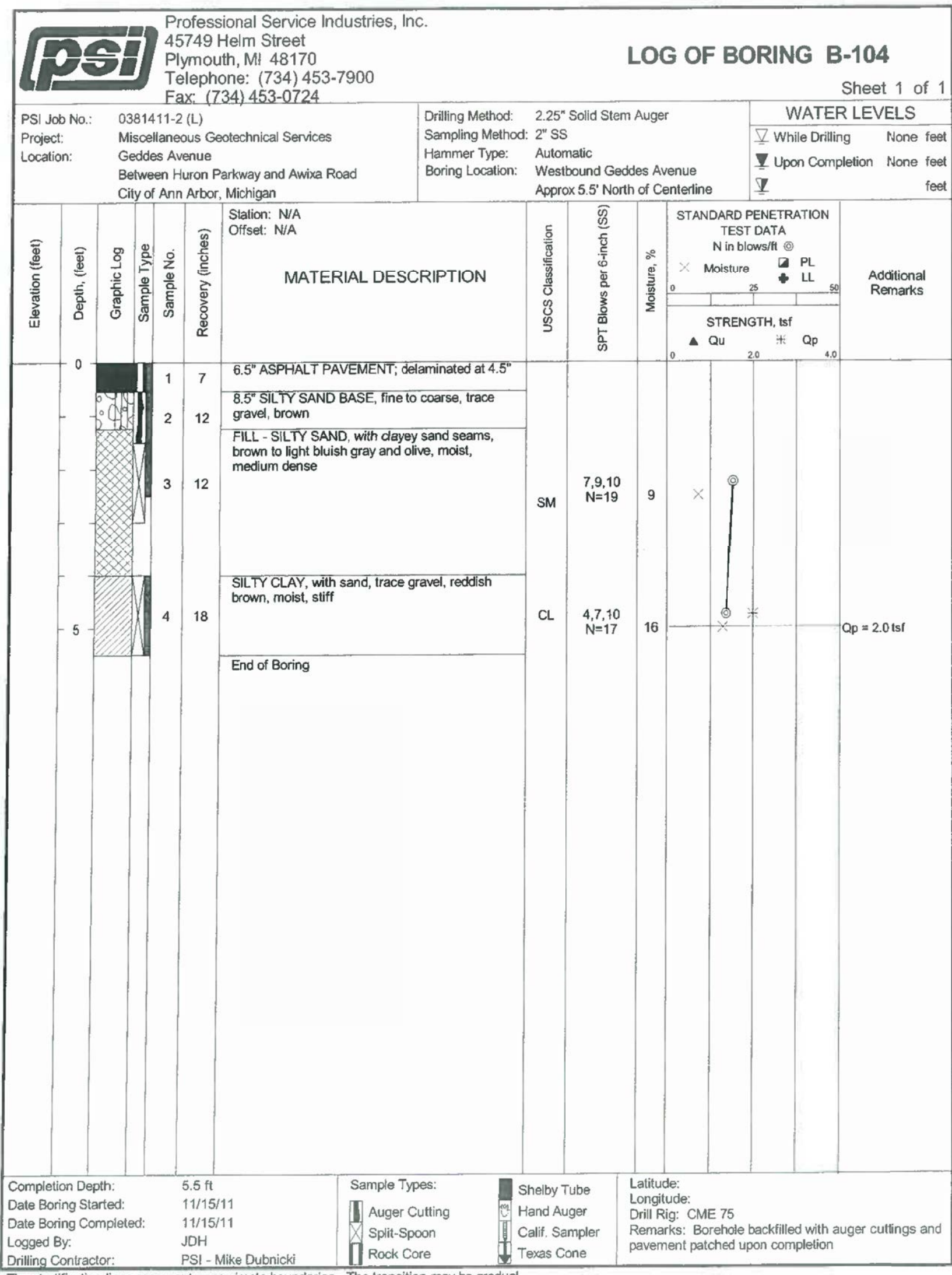
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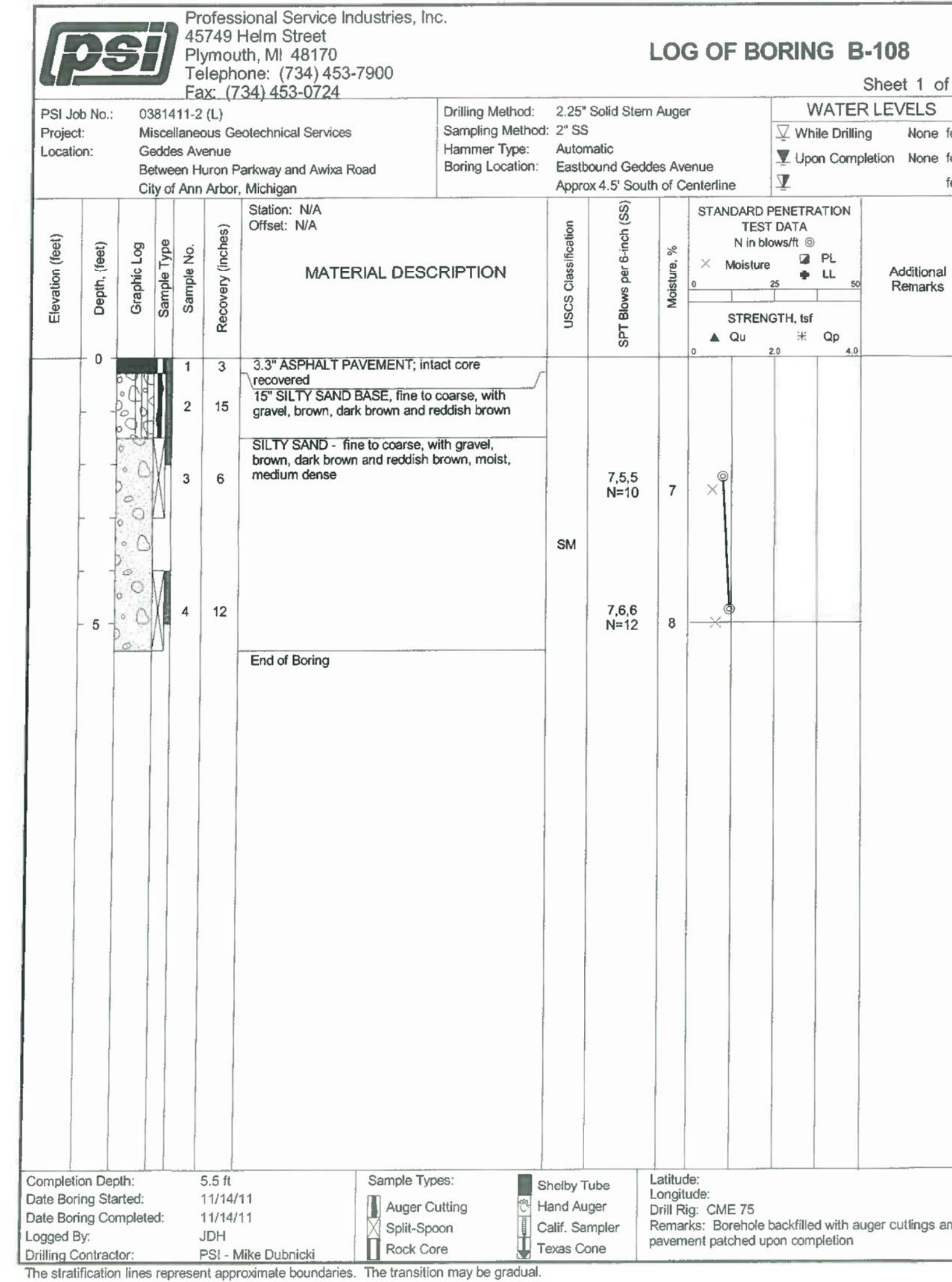
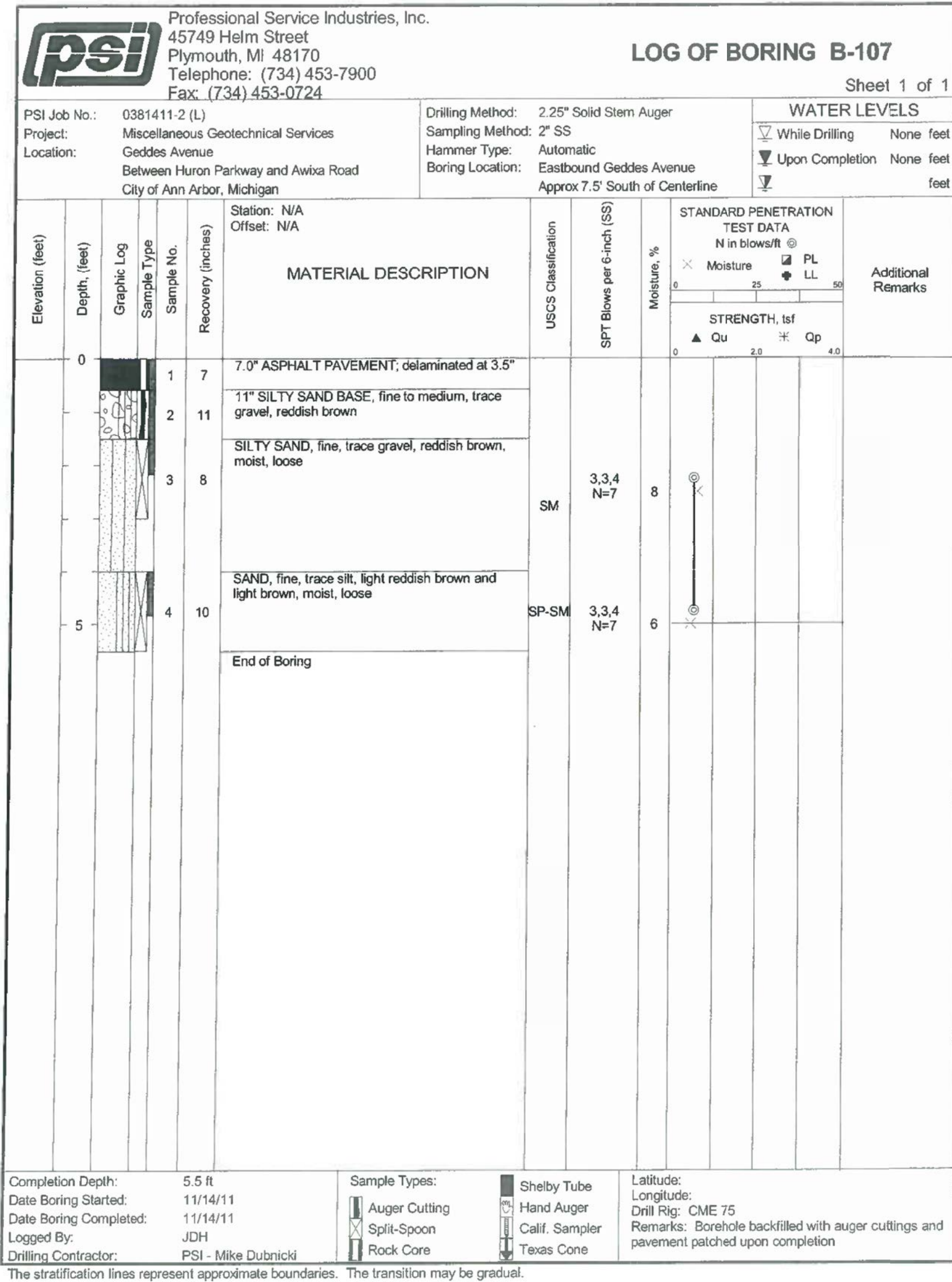


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SOIL BORING LOGS

SCALE NO. SCALE
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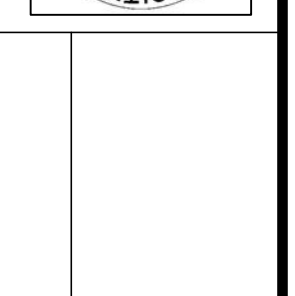
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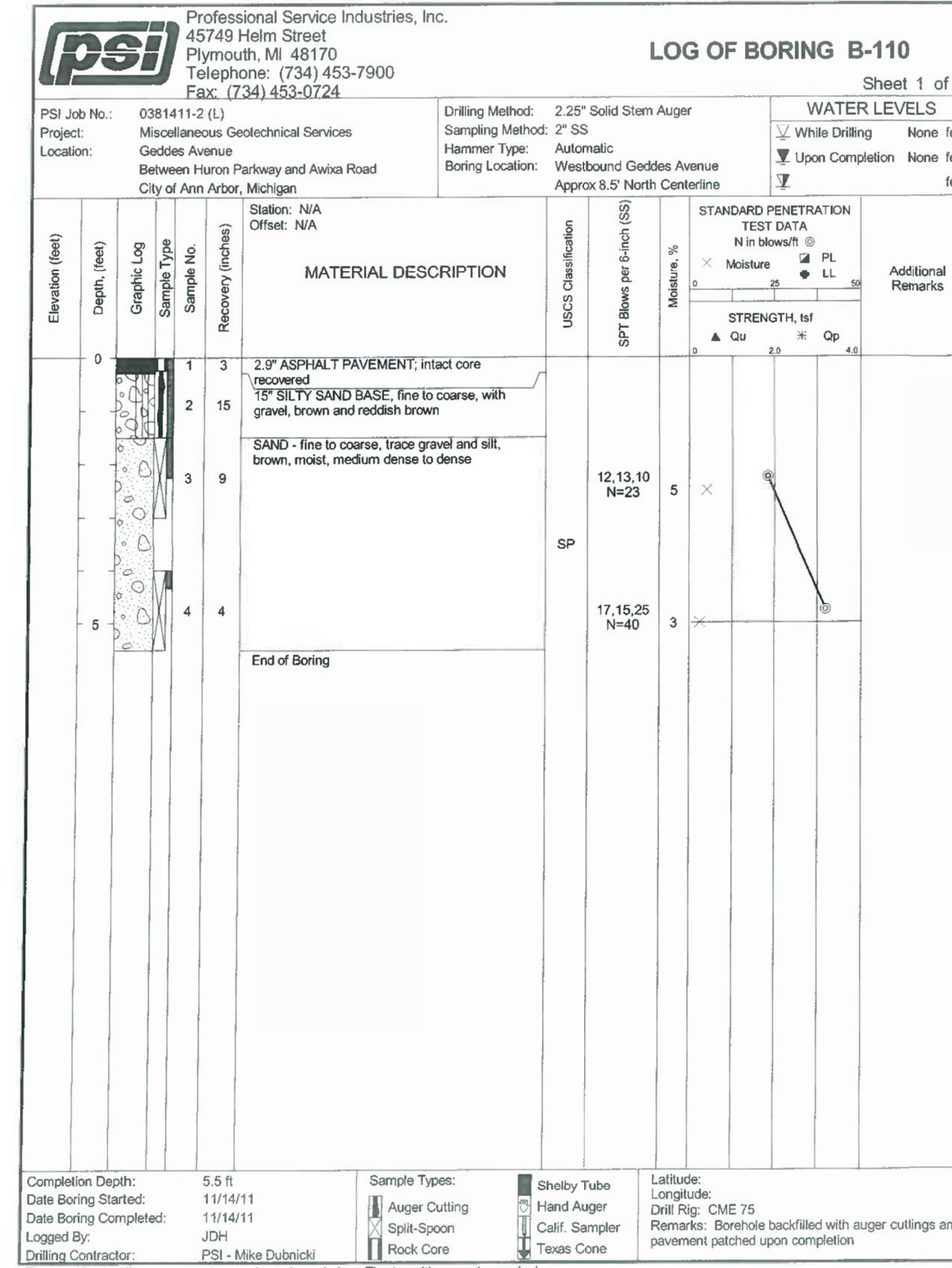
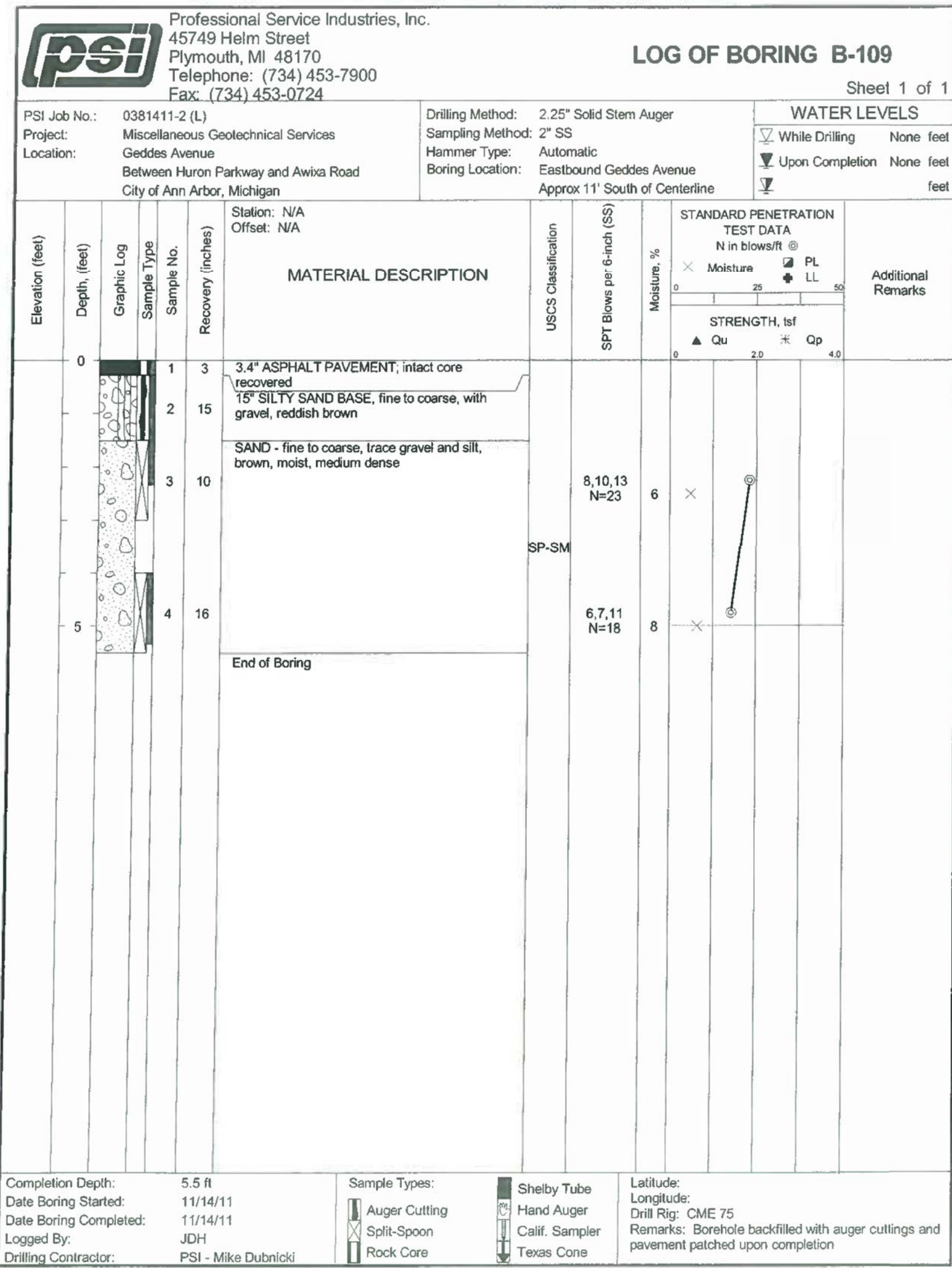


ISSUED FOR BIDS	APR. 22, 2015	ALP/MN	CEH
FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/MN	CEH
FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/MN	CEH
PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/MN	CEH
DESCRIPTION	DATE	DRAWN	CHECKED

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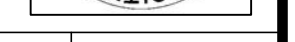


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SOIL BORING LOGS
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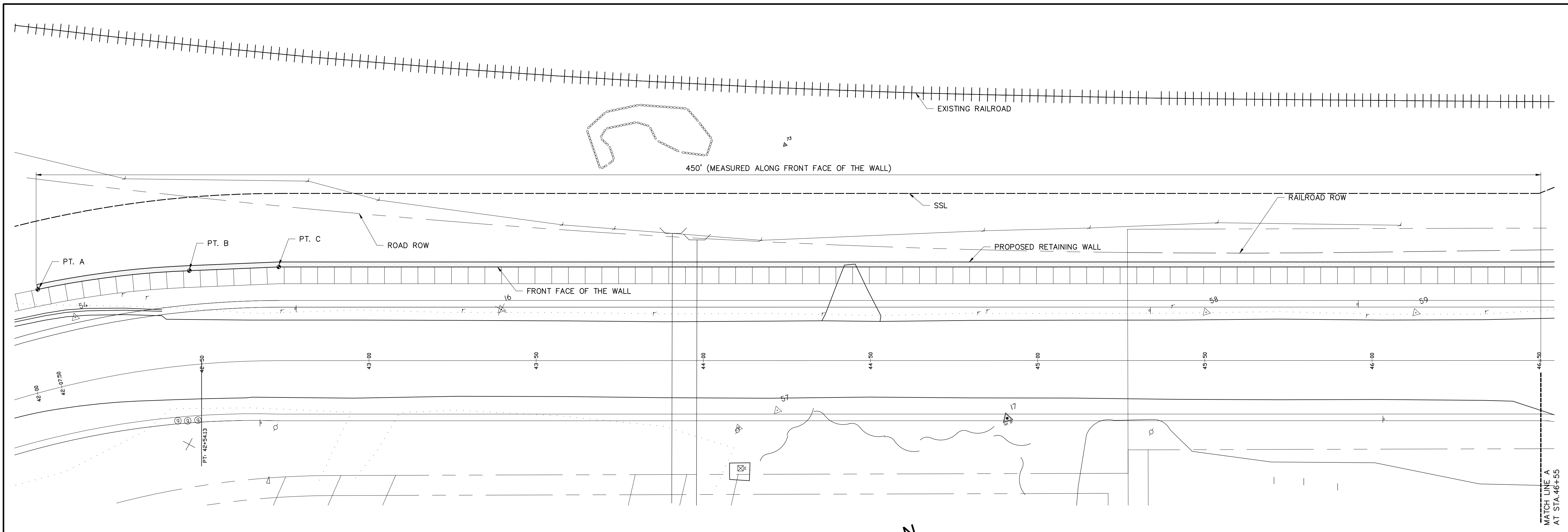


REV.	DESCRIPTION	DATE	DRAWN	CHECKED
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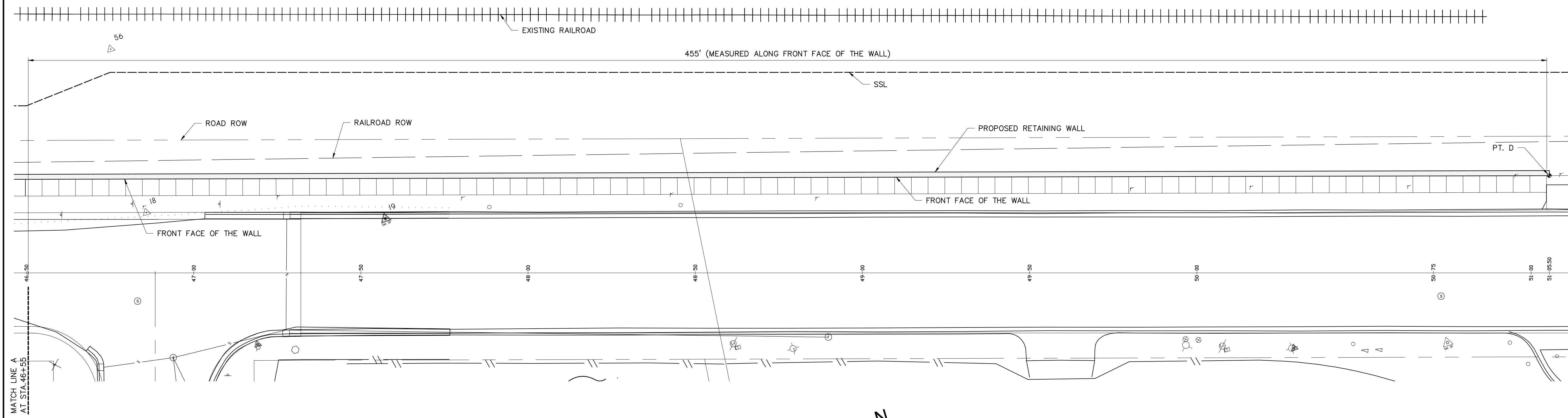
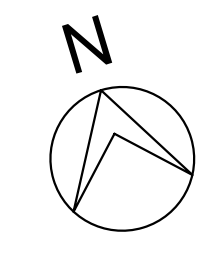
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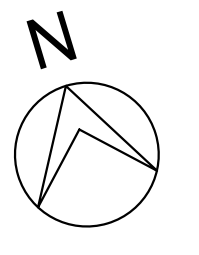
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GEDDES AVENUE IMPROVEMENTS
SOIL BORING LOGS
DRAWING No. SB-09




RETAINING WALL PLAN
SCALE: 1/16" = 1'-0"



RETAINING WALL PLAN
SCALE: 1/16" = 1'-0"



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	FINAL PLAN SUBMITTAL	MAR. 26, 2015	KRK	FES	
	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	KRK	FES	
	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	KRK	FES	
REV.	DESCRIPTION	DATE			
PROJECT MANAGEMENT – PUBLIC SERVICES – CITY OF ANN ARBOR GEDDES AVENUE IMPROVEMENTS RETAINING WALL PLAN					
SHEET No.	SCALE AS NOTED				
	DRAWING No.				
S-1		158 OF 187			





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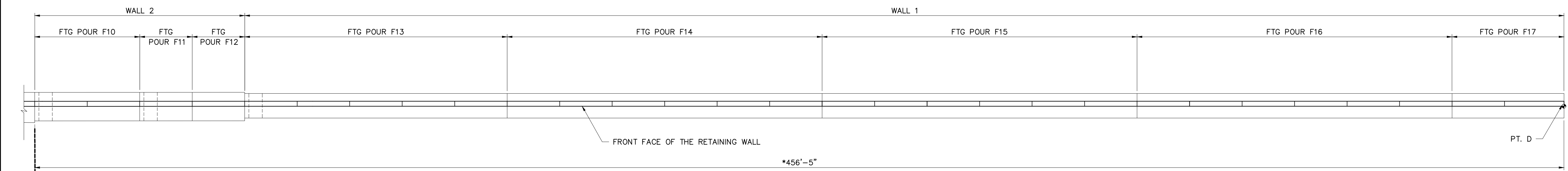
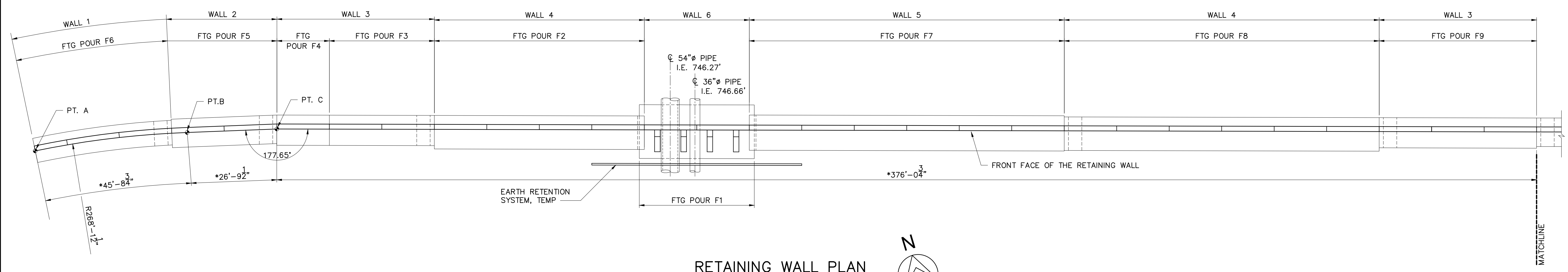
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PRELIMINARY PLAN SUBMITTAL	MAR. 13, 2015	KRK	FES
DESCRIPTION	JAN. 29, 2015	KRK	FES

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
RETAINING WALL PLAN

SCALE AS NOTED
DRAWING No.
SHEET No.



POINT	WALL COORDINATES	
PT. A	E: 13303188.0058	N: 283027.6642
PT. B	E: 13303233.0433	N: 283019.9694
PT. C	E: 13303258.9828	N: 283013.3173
PT. D	E: 13304056.4405	N: 282774.6439

NOTES:
* DIMENSION MEASURED ALONG FRONT FACE OF THE RETAINING WALL.

GENERAL CONDITIONS:

1. VERIFY CONDITIONS AND MEASUREMENTS AT THE SITE AND REPORT ANY DISCREPANCIES TO THE OWNER BEFORE PROCEEDING WITH THE WORK.
2. ALL CONSTRUCTION MUST CONFORM TO O.S.H.A. SAFETY STANDARDS.
3. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO ENSURE THAT NO DAMAGE SHALL COME TO THE EXISTING FACILITIES AND ELEMENTS ADJACENT TO HIS WORK.
4. EXISTING MONUMENTS AND PROPERTY CORNERS ARE TO BE PRESERVED AND PROTECTED. DISTURBED SURVEY MARKERS SHALL BE RESTORED AT THE CONTRACTORS EXPENSE.
5. THE CONTRACTOR SHALL PROCEED WITH HIS WORK IN COMPLIANCE WITH AND SEQUENCE OF CONSTRUCTION INSTRUCTIONS PROVIDED ELSEWHERE IN THESE PLANS AND IN SUCH A FASHION SO AS NOT TO DISRUPT THE OWNER'S OPERATIONS.
6. THE ALLOWABLE SOIL BEARING PRESSURE FOR THE RETAINING WALL FOUNDATIONS SHALL BE A MINIMUM OF 3500 PSF.

EARTHWORK:

1. STRUCTURAL BACKFILL SHALL BE GRANULAR MATERIAL CLASS II PER THE MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
2. THE OWNER'S GEOTECHNICAL ENGINEER SHALL INSPECT AND TEST THE FOUNDATION BEARING GRADE UNDER NEW RETAINING WALL FOUNDATIONS TO VERIFY BEARING CAPACITY. UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED.

REINFORCED CONCRETE:

1. CONCRETE CONSTRUCTION SHALL COMPLY WITH ACI 318 (LATEST EDITION), "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
2. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
3. CEMENT FOR CONCRETE SHALL BE ASTM C-150 TYPE I OR TYPE II WITH AN EQUIVALENT TOTAL ALKALI CONTENT AS No20 NO GREATER THAN 0.60%.
4. FINE AGGREGATE SHALL BE NATURAL SAND 2NS.
5. COARSE AGGREGATE SHALL CONFORM TO ASTM C33 AND SHALL BE GRADED IN ACCORDANCE WITH THE FOLLOWING MICHIGAN DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR CONSTRUCTION CLASSIFICATIONS. COARSE AGGREGATE FOR USE IN CONCRETE MIXES SHALL BE AS FOLLOWS:
 - a. RETAINING WALLS: MDOT CLASS 6AA.
6. FINE AND COARSE AGGREGATES SHALL BE FROM SOURCES THAT HAVE BEEN TESTED

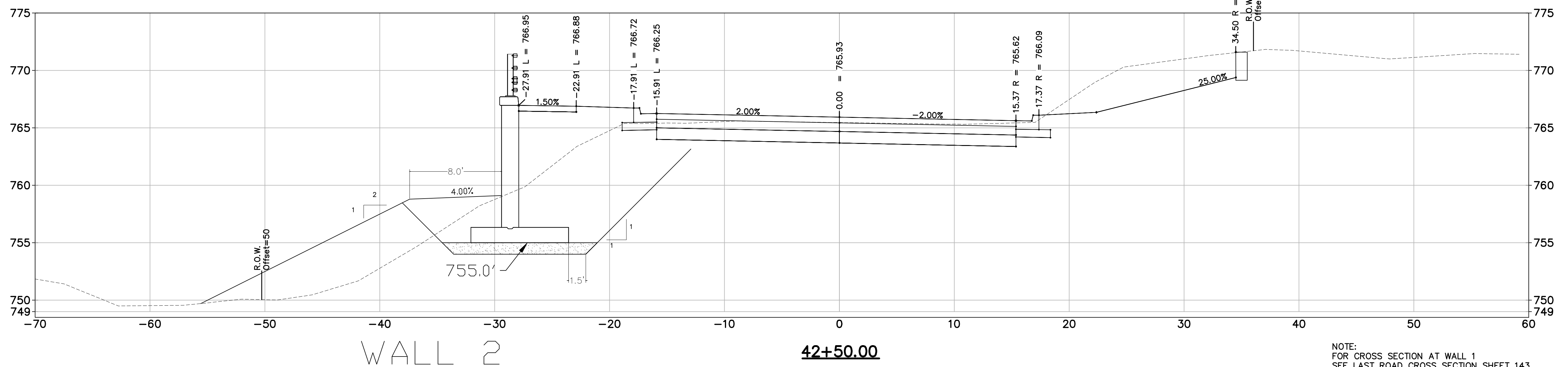
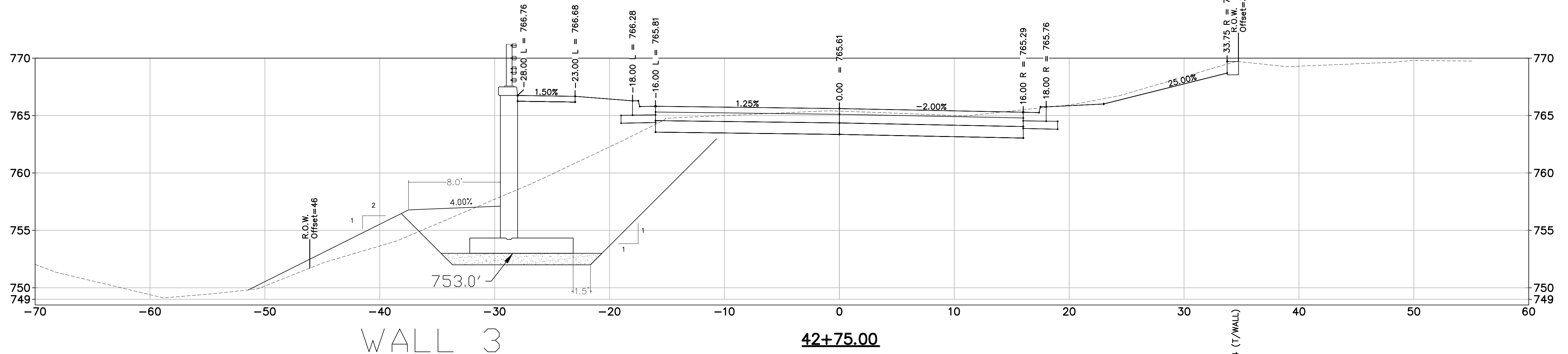
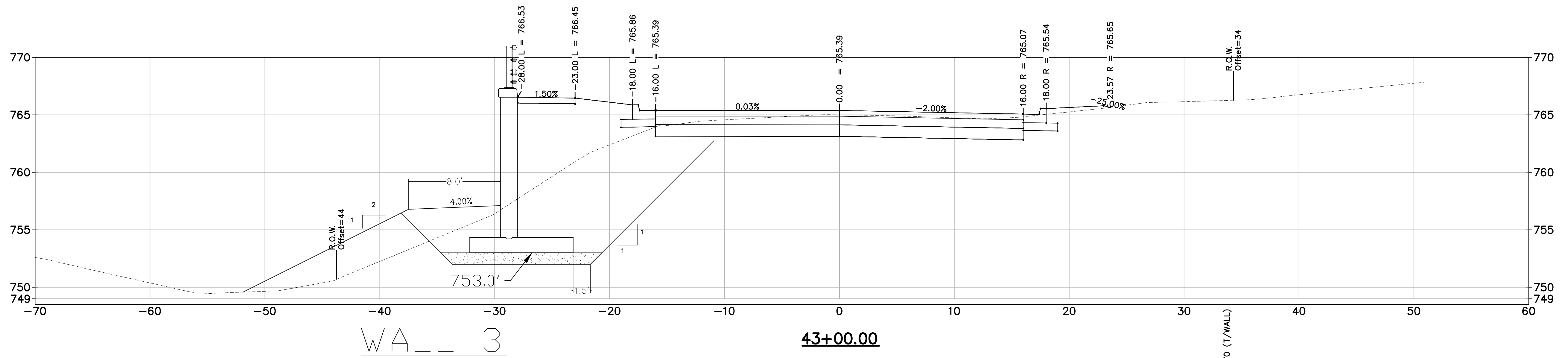
REINFORCED CONCRETE (CONT.):

1. ALKALI-SILICA REACTIVITY (ASR) PER ASTM 1260 AND ASTM 1293 AND HAVE BEEN SHOWN TO BE RESISTANT TO EXCESSIVE EXPANSION CAUSED BY ASR.
7. CONCRETE SHALL BE AIR ENTRAINED TO A TOTAL AIR CONTENT OF 6%.
8. CONCRETE MIXTURE WATER-CEMENT RATIO SHALL BE NO GREATER THAN 0.45.
9. CONCRETE MIX DESIGN SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. SUBMITTAL SHALL CONTAIN:
 - a. MIX RECIPE
 - b. CURRENT CEMENT MANUFACTURER DATA SHEET
 - c. HISTORICAL TEST DATA WITH STANDARD DEVIATION PER ACI 318 CHAPTER 5 OR 3 POINT TRIAL BATCH CURVE DATA
 - d. FINE AND COARSE AGGREGATE: GRADATION, ANY AVAILABLE ASTM TEST DATA FOR ALKALI-SILICA REACTIVITY (ASR), PIT ID, MDOT PIT ID
 - e. ADMIXTURE DATA SHEETS
10. STEEL REINFORCEMENT SHALL BE NEW BILLET CONFORMING TO ASTM A615, GRADE 60.
11. REINFORCEMENT SHALL BE DETAILED IN ACCORDANCE WITH LATEST EDITION OF ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND ACI 315, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".
12. CONCRETE CLEAR COVER TO REINFORCEMENT SHALL COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITION OF ACI 318.
13. MINIMUM LAP OF REINFORCEMENT SHALL BE CLASS "B", CATEGORY "6", AS CALLED FOR IS CRSI, UNLESS OTHERWISE NOTED.
14. PROVIDE KEYWAYS AT ALL CONSTRUCTION JOINTS (C.J.) WHERE SHOWN ON DETAILS.
15. SUPPORT BOTTOM LAYER OF REINFORCEMENT FROM GRADE WITH REINFORCEMENT CHAIRS OR CONCRETE DOBIES.
16. ALL EXPOSED CONCRETE EDGES SHALL HAVE A 3/4" CHAMFER.
17. JOINT WATERPROOFING SHALL BE W.R. MEADOWS MEL-ROL OR OTHER APPROVED EQUAL. CLEAN AND PRIME SURFACES TO BE WATERPROOFED PER MANUFACTURER'S RECOMMENDATIONS.
18. ALL FIELD CUT REINFORCING STEEL SHALL HAVE THE BARE ENDS REPAIRED WITH EPOXY.

SUGGESTED RETAINING WALL CONCRETE PLACEMENT PROCEDURE

THE PURPOSE OF THIS SUGGESTED CONCRETE PLACEMENT PROCEDURE IS TO CONVEY THE DESIGN INTENT ENVISIONED FOR THE CONSTRUCTION SEQUENCE OF THE RETAINING WALL. THIS PROCEDURE SHALL BE REVISED AS DEEMED NECESSARY BY THE GENERAL CONTRACTOR TO COORDINATE THE WORK EFFORT OF ALL INVOLVED TRADES. THE ESTABLISHED MEANS AND METHODS FOR ALL CONSTRUCTION ACTIVITIES SHALL BE THE RESPONSIBILITY OF THE CONSTRUCTION MANAGER AND THE ASSIGNED SUB-CONTRACTORS PERFORMING THE WORK. THE SUGGESTED SEQUENCE OF CONCRETE PLACEMENT IS AS FOLLOWS:

1. F1
2. FW1, FW2
3. F2, F7
4. F3, F8, W1
5. F4, F9, W2, W8, CF1 x 4, C1
6. F5, F10, W3, W9, C2, C8
7. F6, F11, W4, W10, C3, C9
8. F12, W5, W11, C4, C10
9. F13, W6, W12, C5, C11
10. F14, W7, W13, C6, C12
11. F15, W14, C7, C13
12. F16, W15, C14, EW1
13. F17, W16, C15
14. W17, C16
15. W18, C17
16. W19, C18
17. W20, C19
18. W21, C20
19. W22, C21
20. W23, C22
21. W24, C23
22. W25, C24
23. W26, C25
24. W27, C26
25. W28, C27
26. W29, C28
27. C29
28. EW2

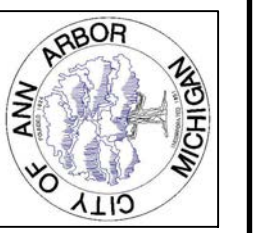


NOTE:
FOR CROSS SECTION AT WALL 1
SEE LAST ROAD CROSS SECTION SHEET 143.



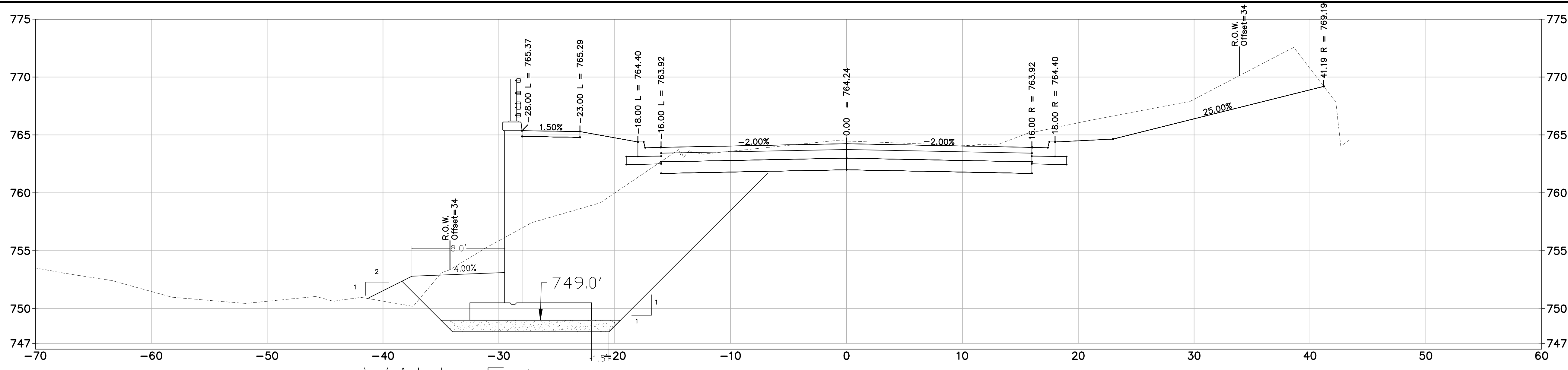
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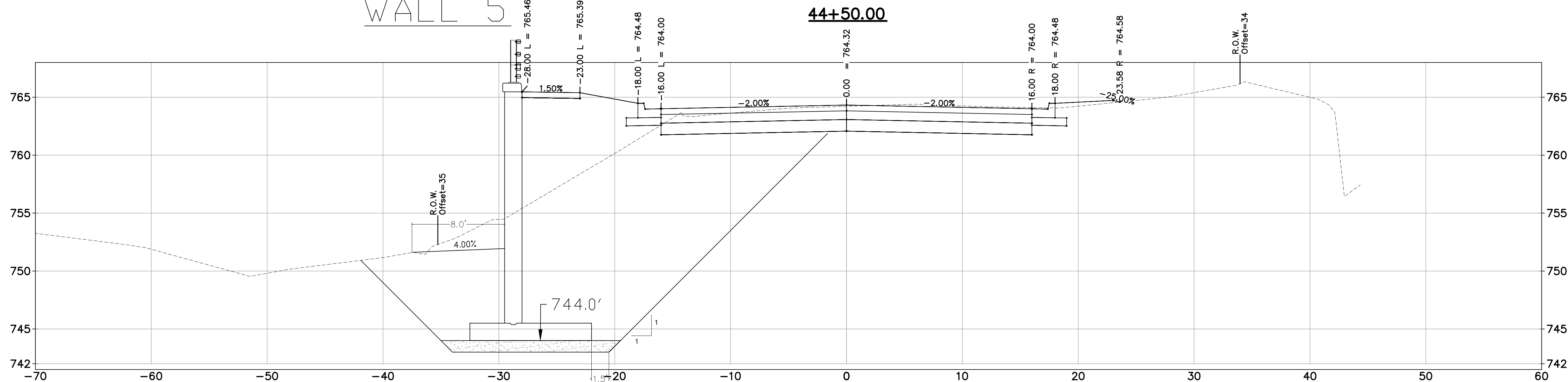


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ROAD CROSS SECTIONS

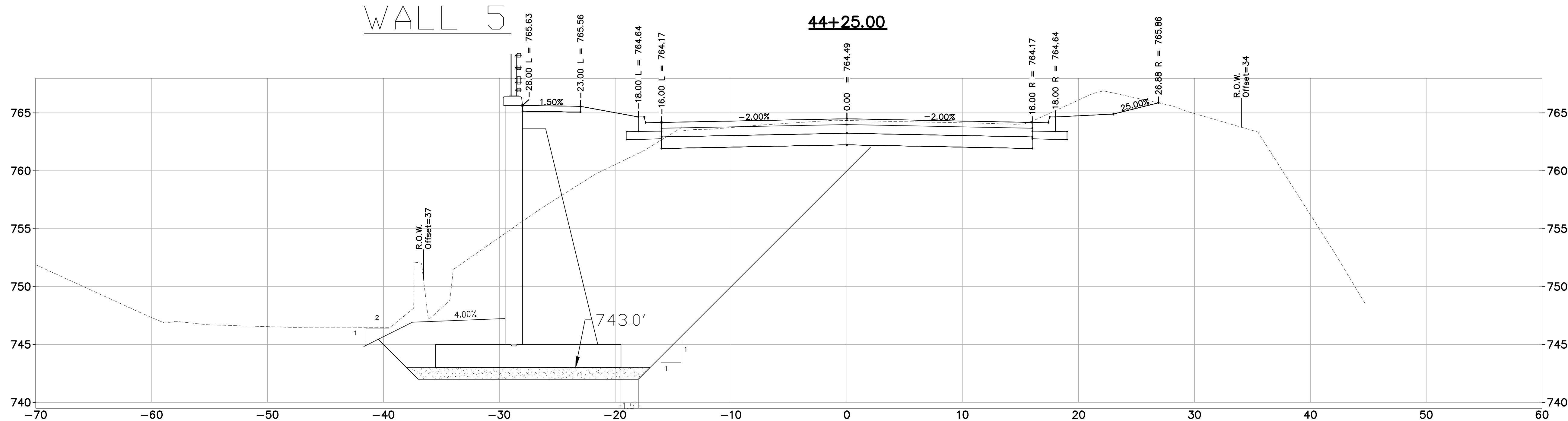
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SHEET No.	



WALL 5
44+50.00



WALL 5
44+25.00



WALL 6
43+99.90

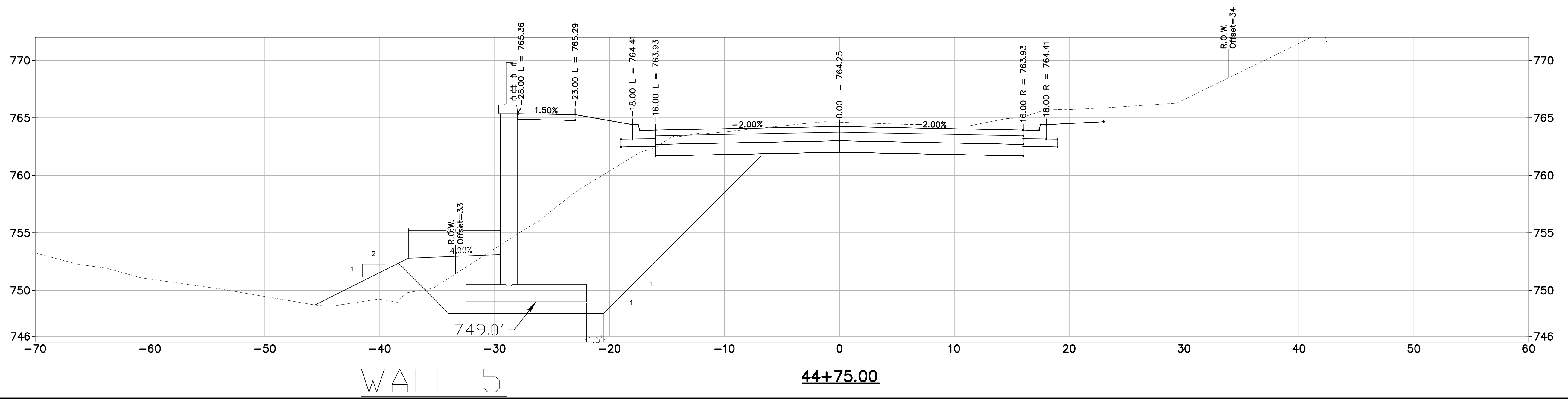
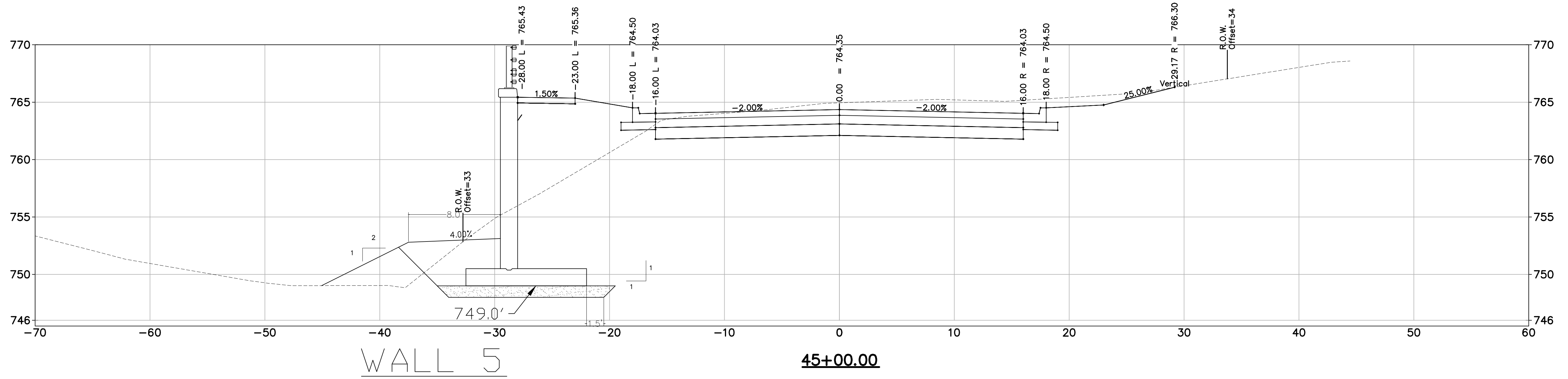
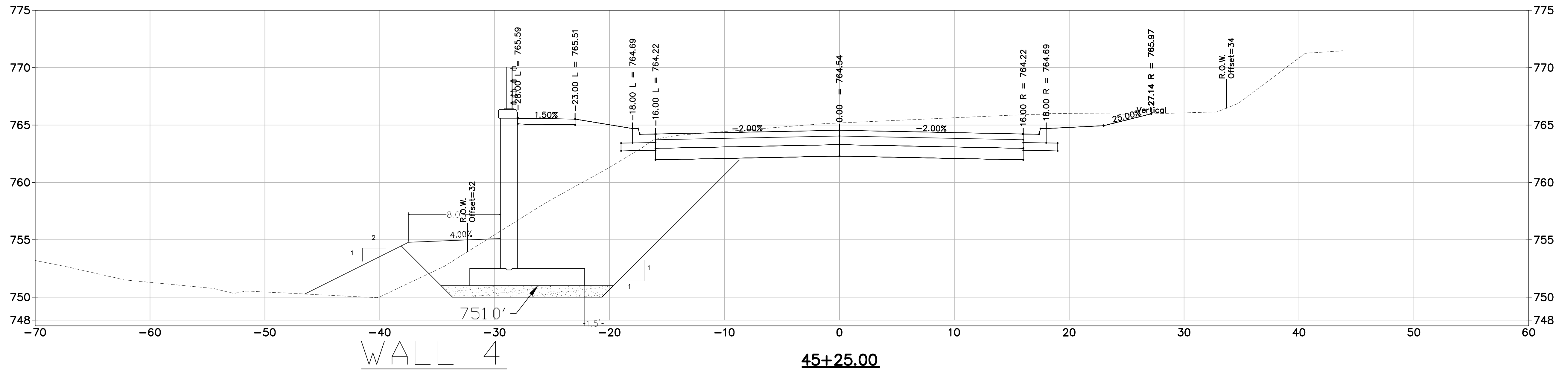


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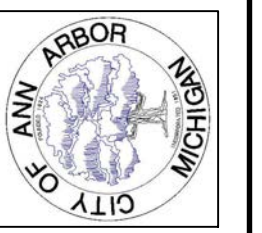
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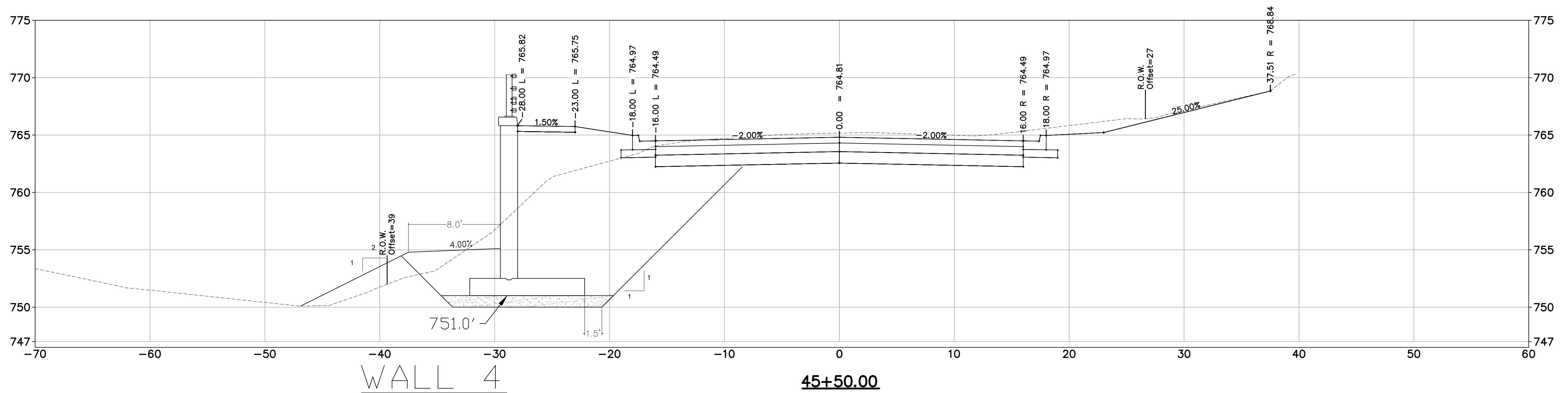
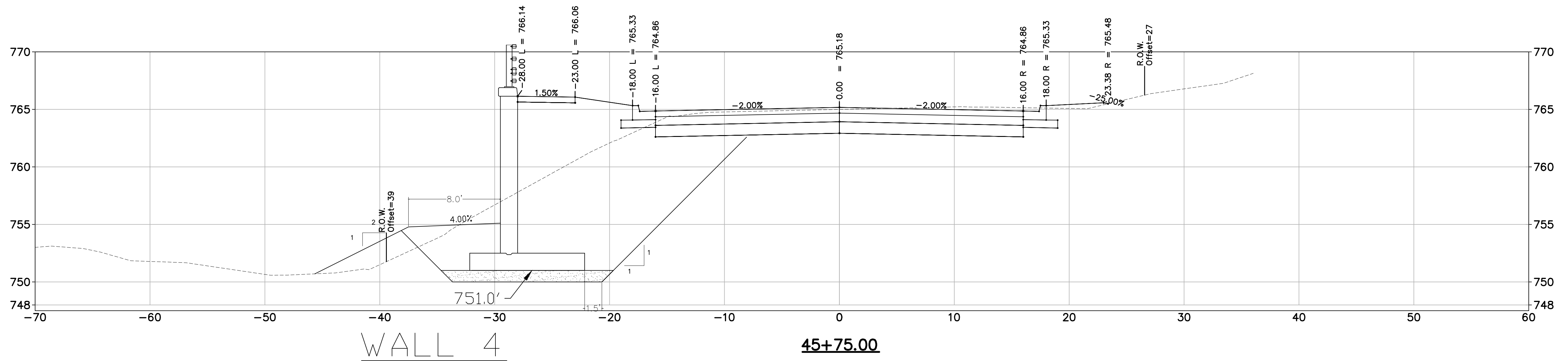
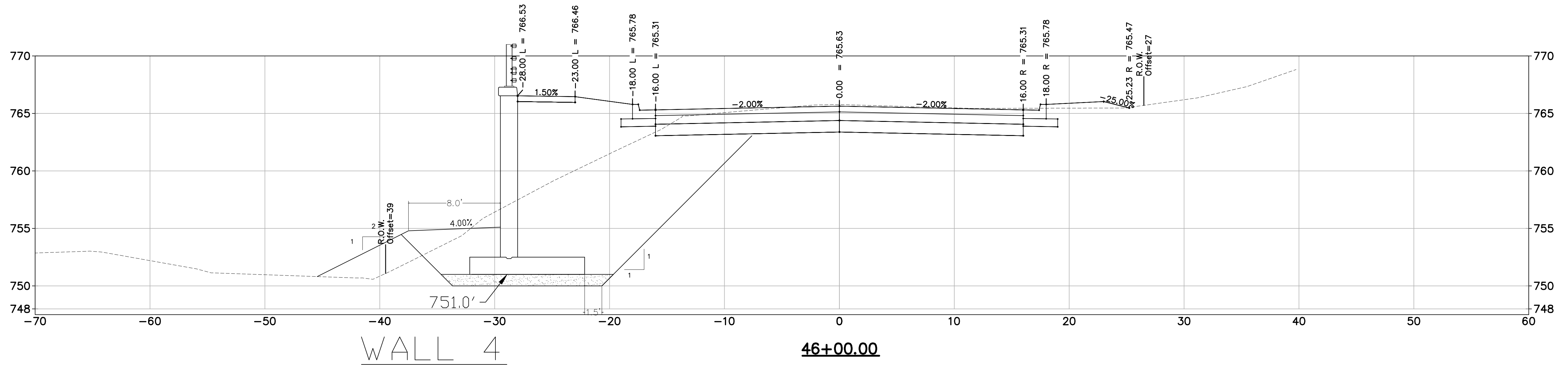
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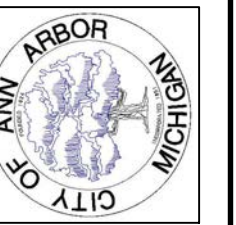
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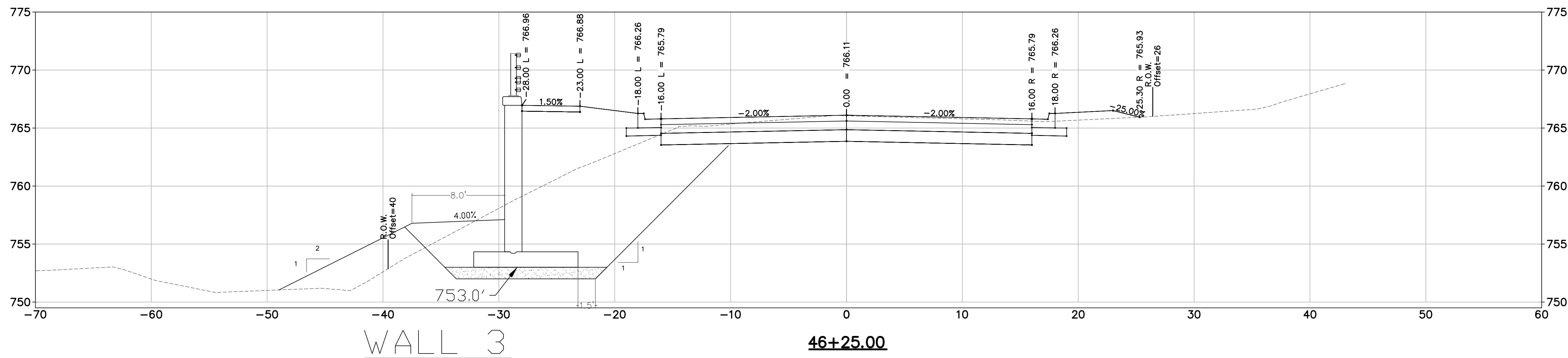
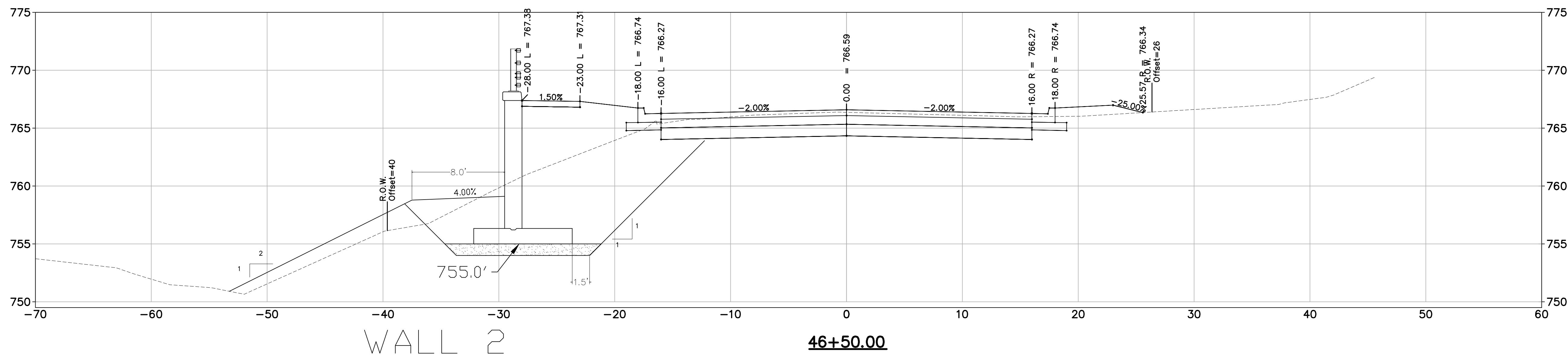
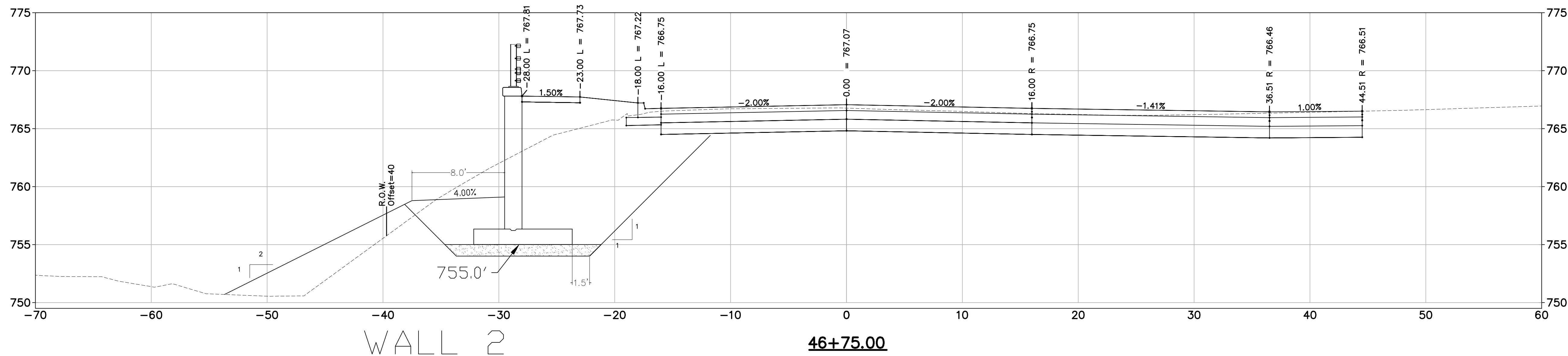
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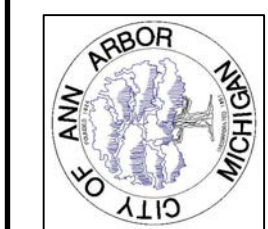
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GEDDES AVENUE IMPROVEMENTS

SHEET No. 164 OF 187



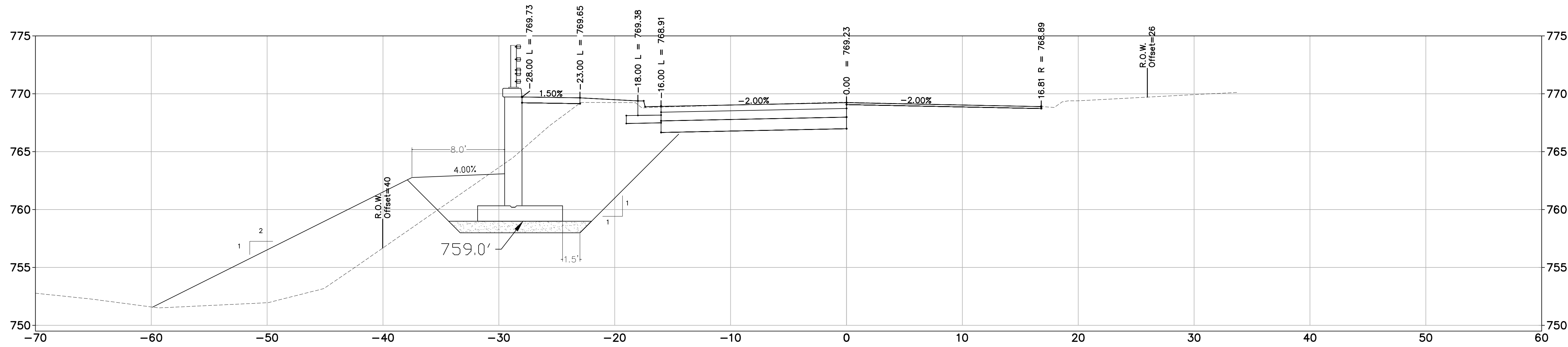
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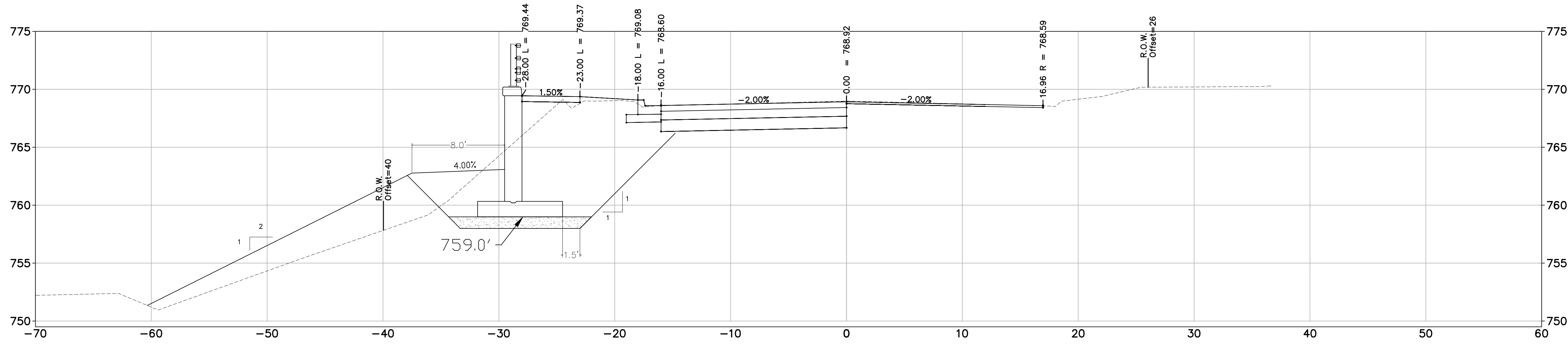


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GEDES AVENUE IMPROVEMENTS

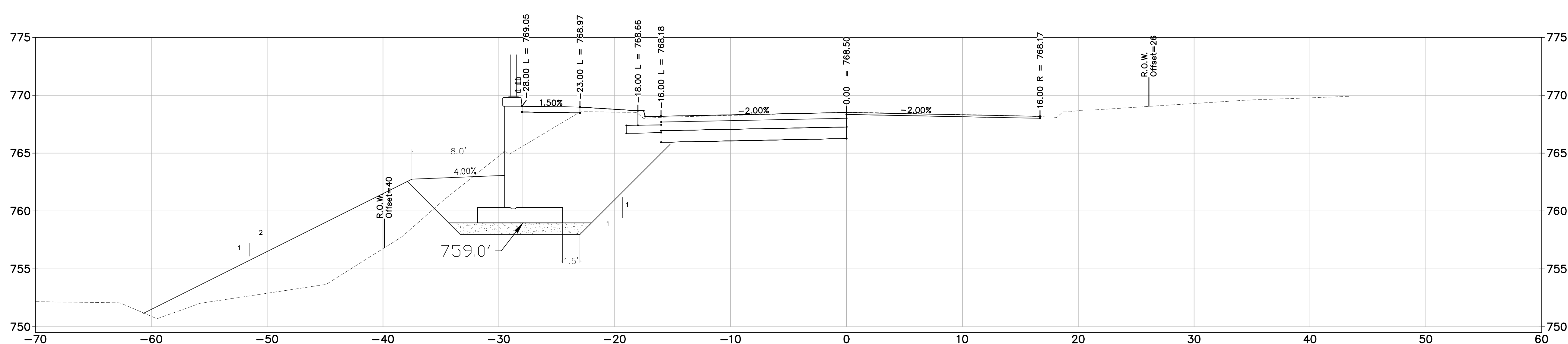
SHEET No.



WALL 1
48+00.00



WALL 1
47+75.00

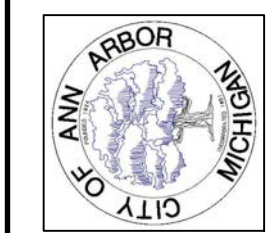


WALL 1
47+50.00



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FINAL REVIEW SUBMITTAL	MAR. 26, 2015	ALP/MN	CEH
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	JAN. 29, 2015	ALP/MN	CEH

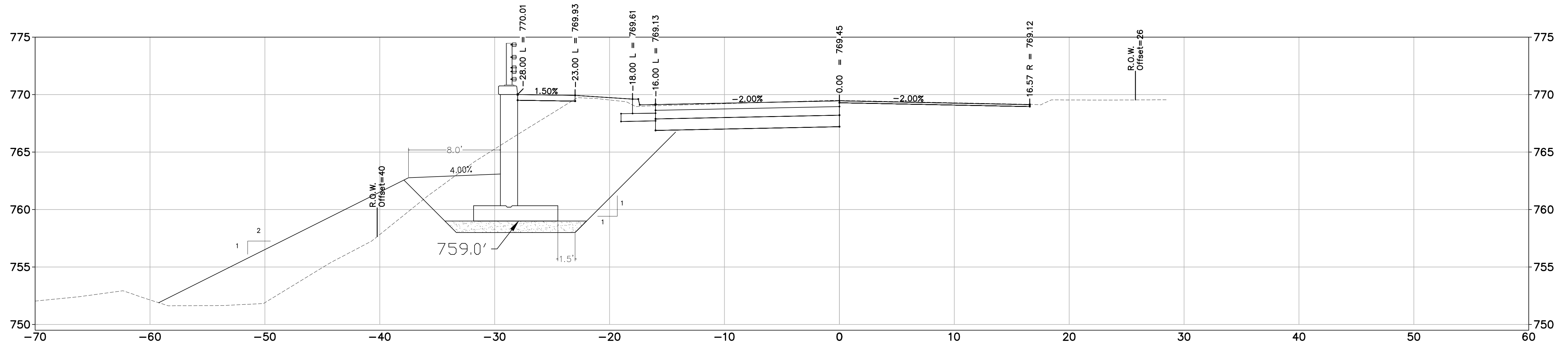
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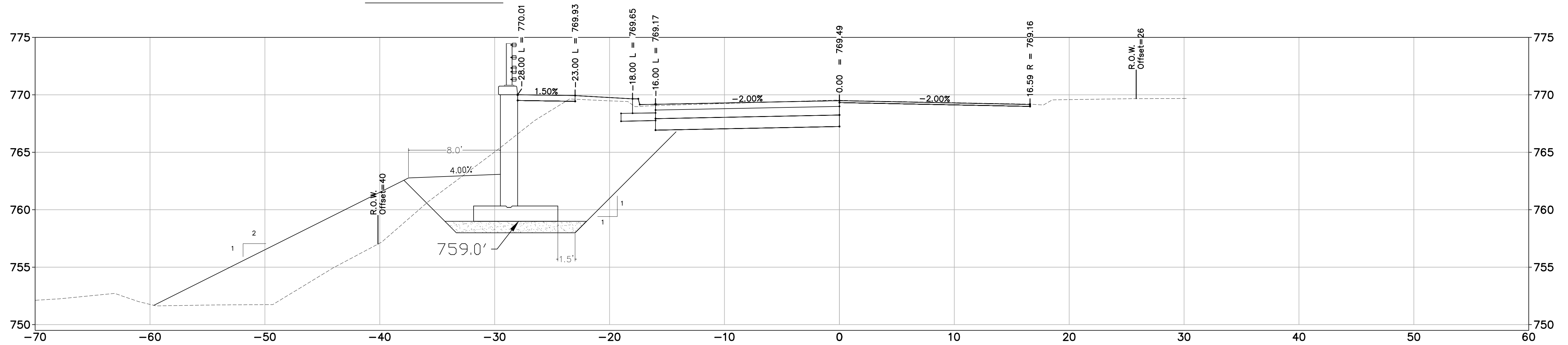
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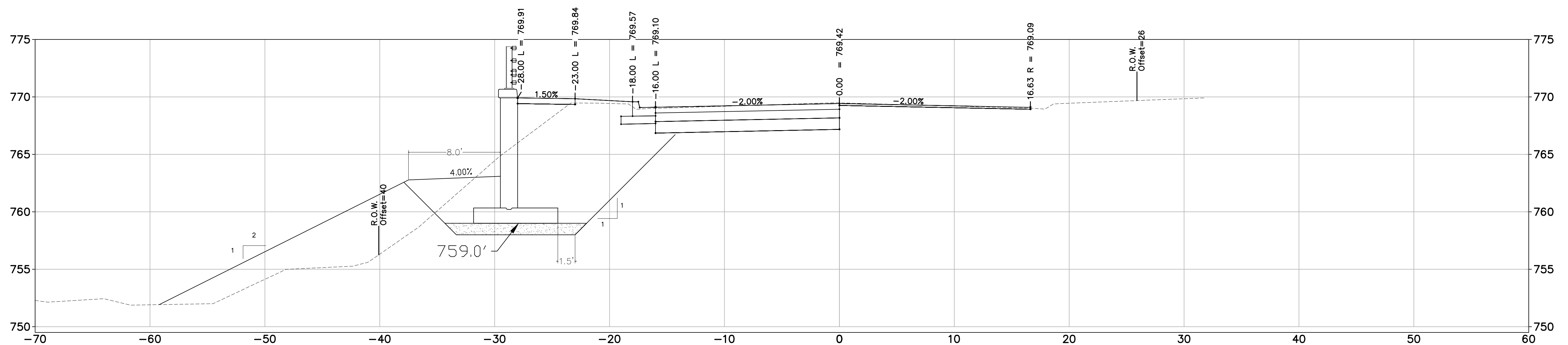
WALL 1

48+75.00



WALL 1

48+50.00



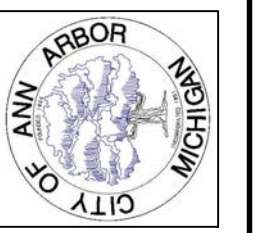
WALL 1

48+25.00



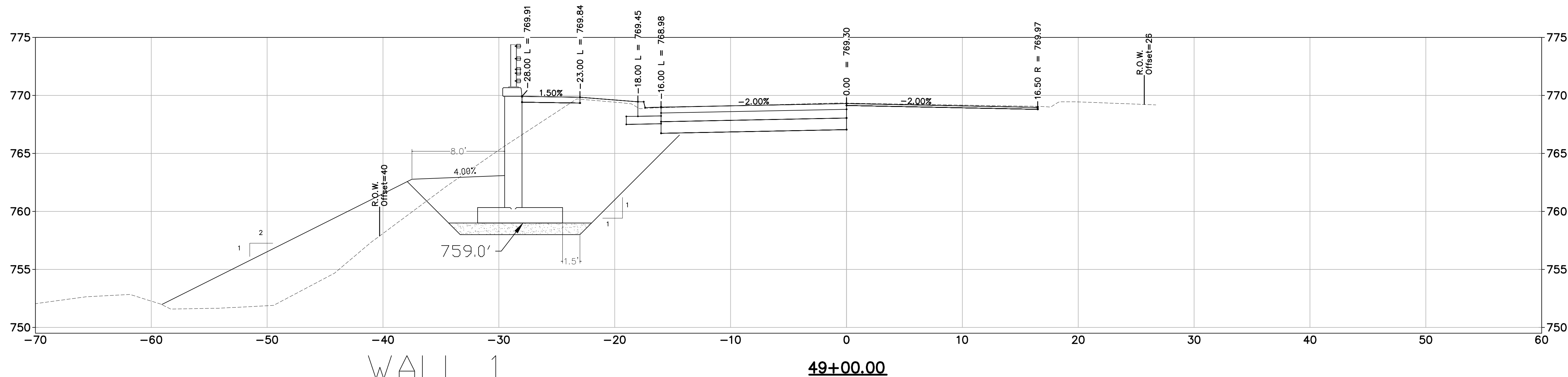
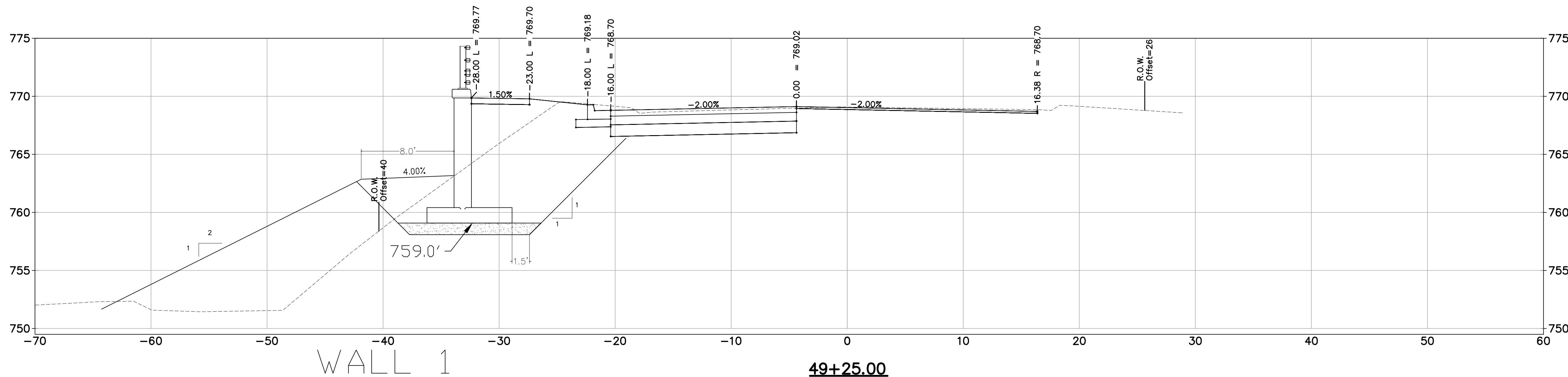
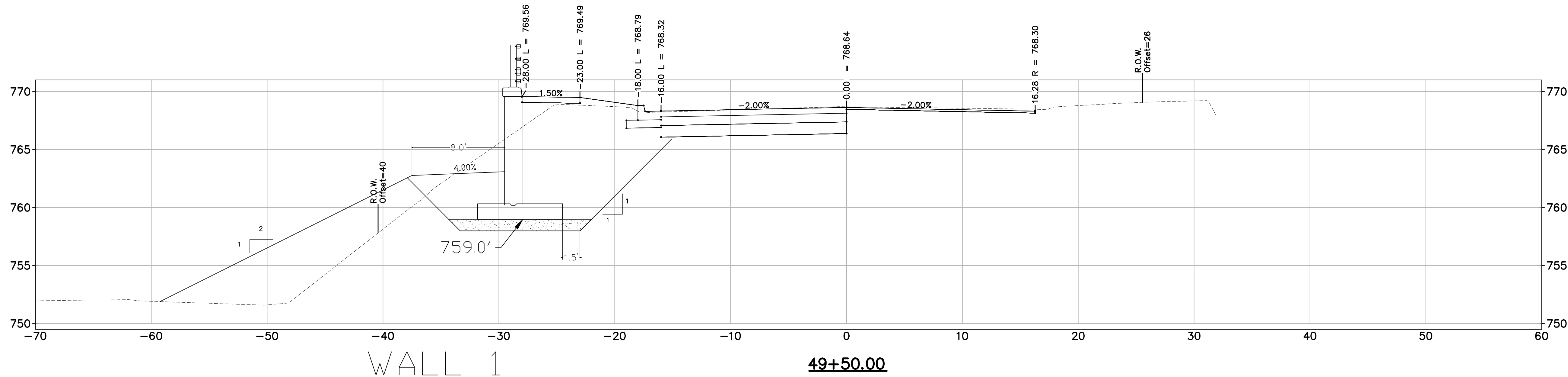
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	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/MN	CEH
	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/MN	CEH
	PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	ALP/MN	CEH

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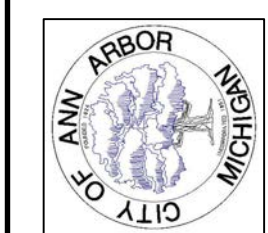
PROJECT MANAGEMENT – PUBLIC SERVICES – CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS

SCALE
DRAWING No.
SHEET No.



ISSUED FOR BIDS	ALP/ANN	CEH	CHECKED
FINAL PLAN SUBMITTAL	APR. 22, 2015	ALP/ANN	CEH
FINAL REVIEW SUBMITTAL	MAR. 26, 2015	ALP/ANN	CEH
PRELIMINARY PLAN SUBMITTAL	MAR. 13, 2015	ALP/ANN	CEH
REV.	DATE	DRAWN	CHECKED

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GEDDES AVENUE IMPROVEMENTS

SHEET No.



CEH
CEH
CEH
CEH
CEH

ALP/MIN
ALP/MIN
ALP/MIN
ALP/MIN
ALP/MIN

APR. 22, 2015
MAR. 26, 2015
MAR. 13, 2015
JAN. 29, 2015

ISSUED FOR BIDS
FINAL PLAN SUBMITTAL
FINAL REVIEW SUBMITTAL
PRELIMINARY PLAN SUBMITTAL

DATE
DATE
DATE
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DESCRIPTION

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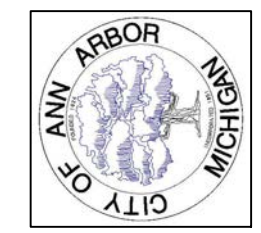
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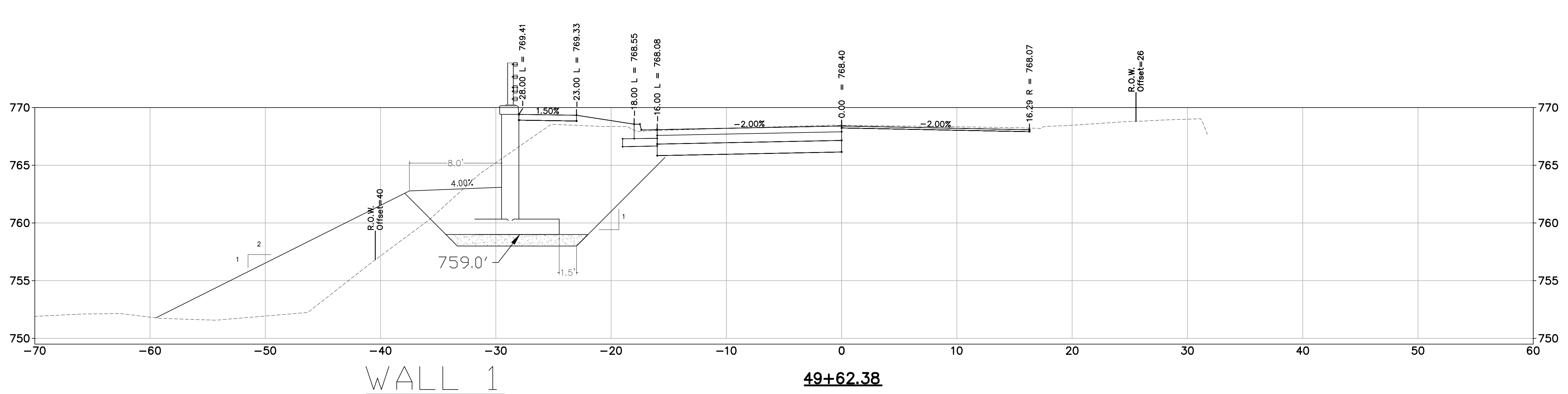
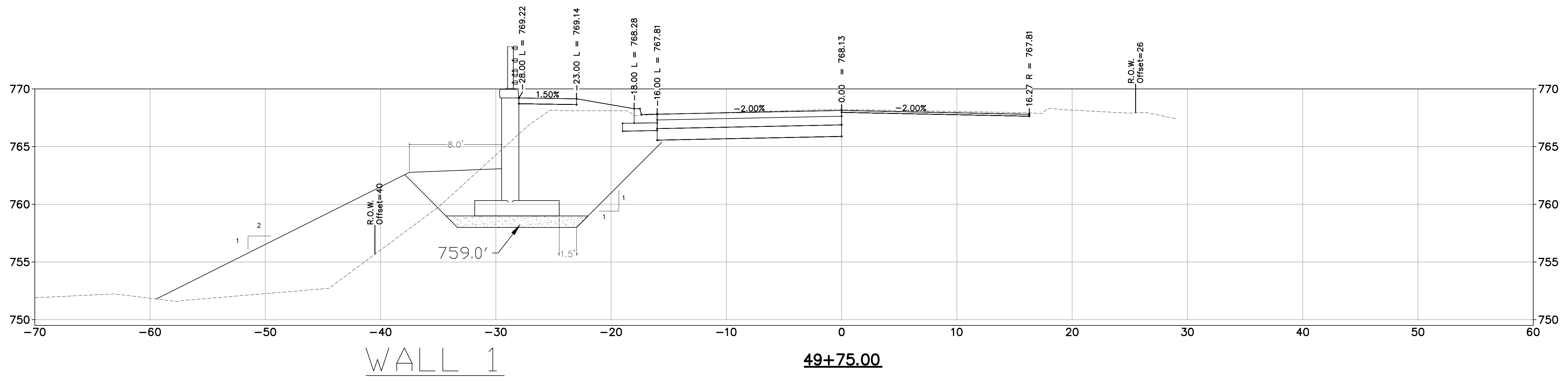
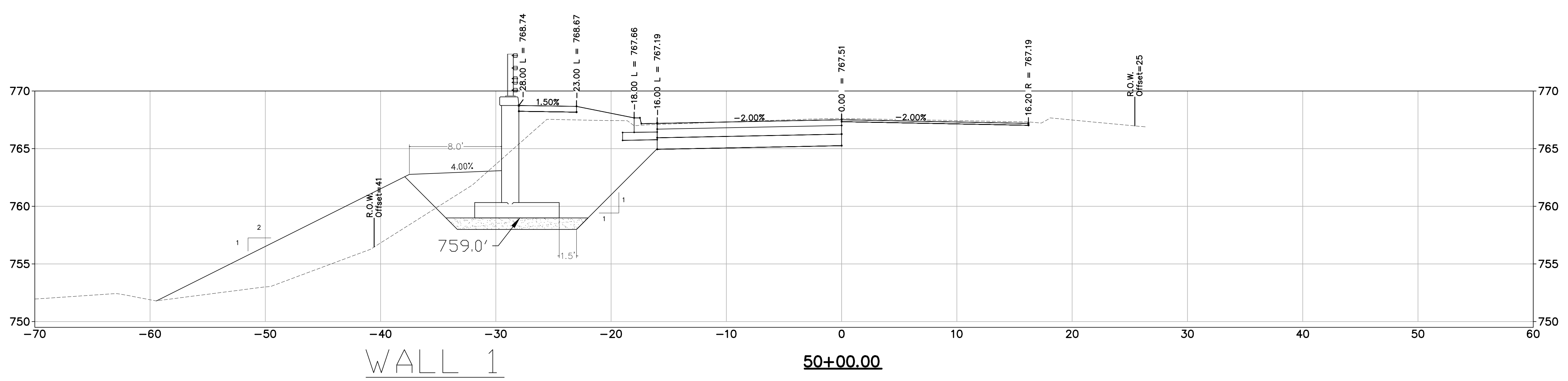


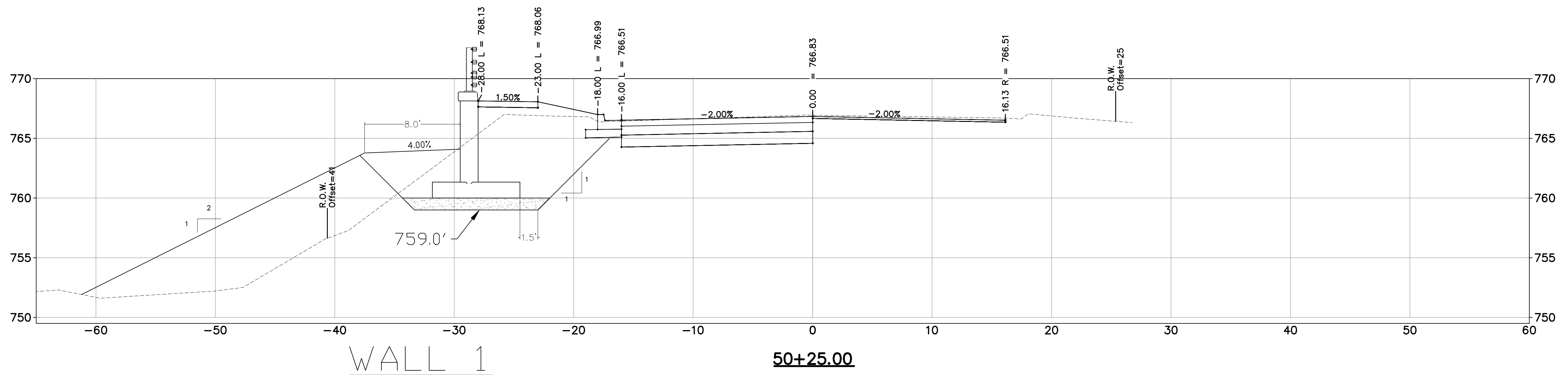
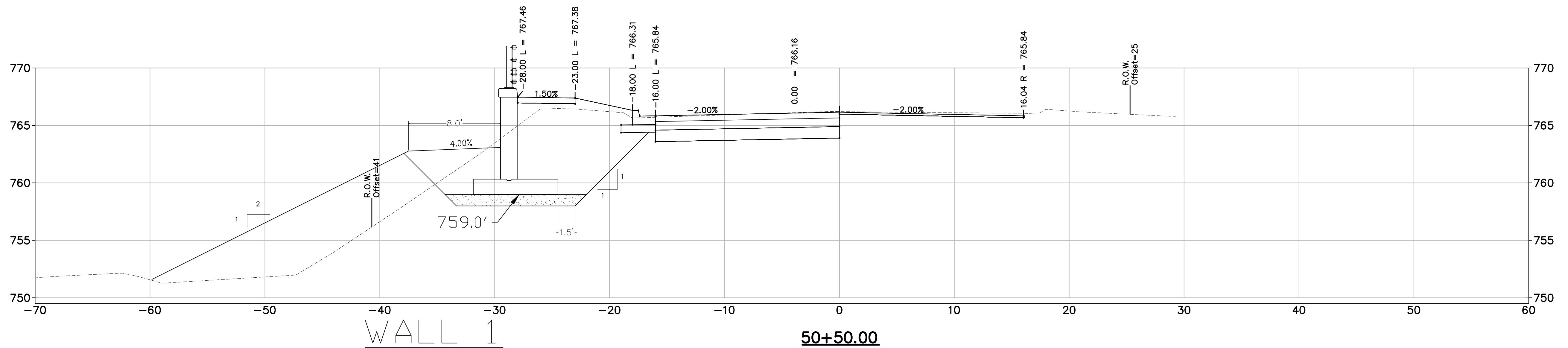
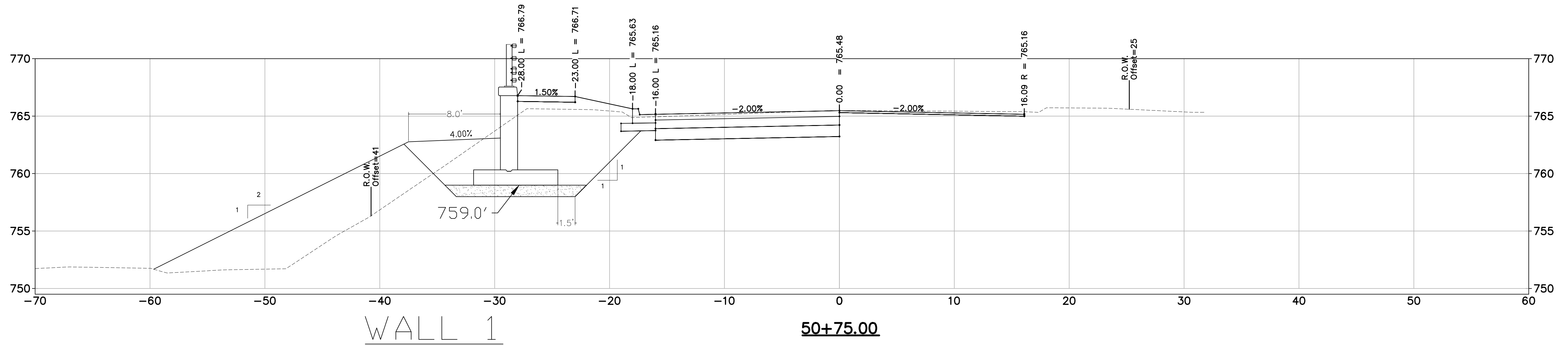
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS

SCALE
DRAWING No.

SHEET No.

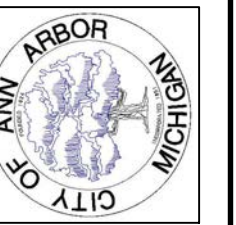
170 OF 187





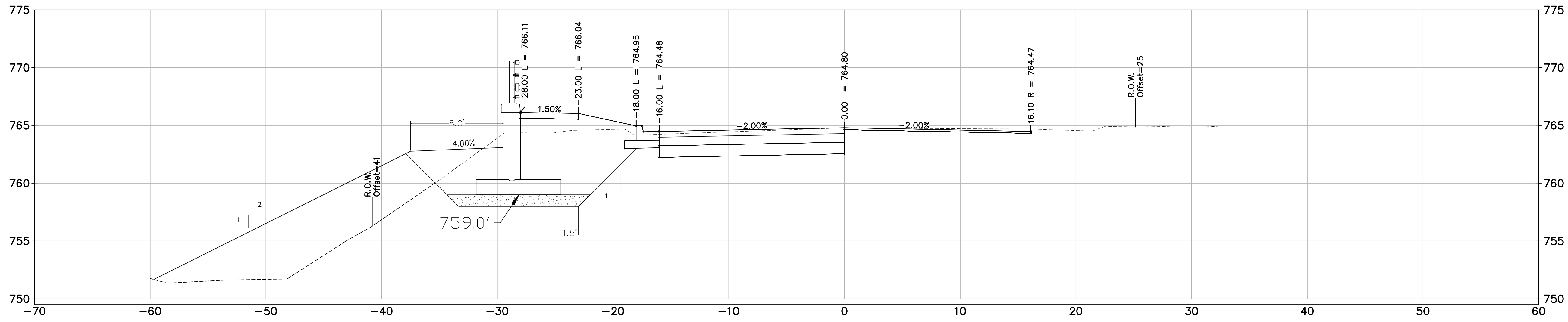
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PROJECT MANAGEMENT – PUBLIC SERVICES – CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS

SHEET No.



WALL 1

51+00.00



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
	ISSUED FOR BIDS	APR. 22, 2015	ALP/MN	CEH
	FINAL PLAN SUBMITTAL	MAR. 26, 2015	ALP/MN	CEH
	FINAL REVIEW SUBMITTAL	MAR. 13, 2015	ALP/MN	CEH
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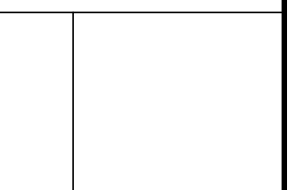
PROJECT MANAGEMENT – PUBLIC SERVICES – CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS

SCALE
DRAWING No.
SHEET No.

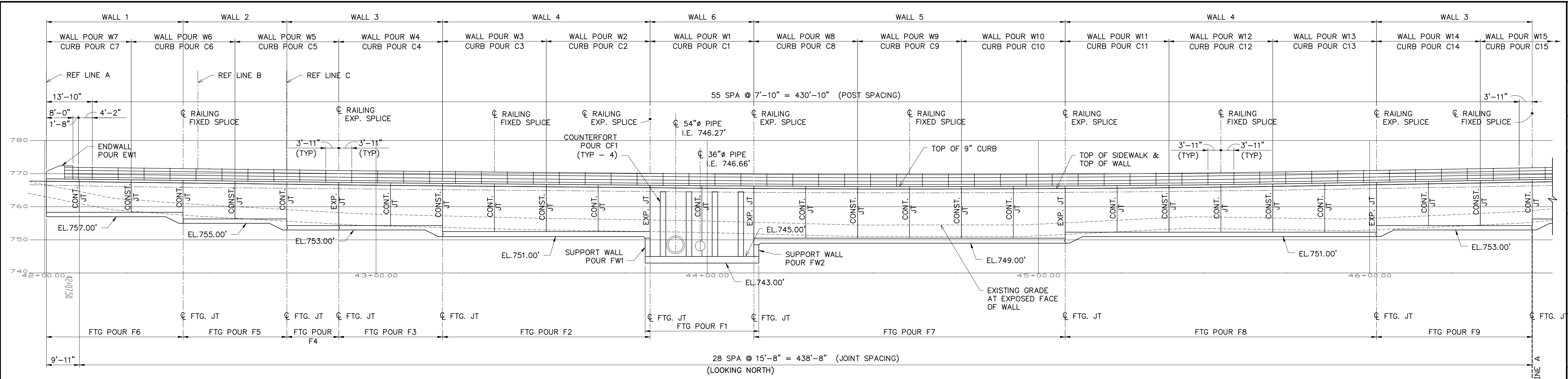


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APR. 22, 2015	ISSUED FOR BIDS		KRK	FES
MAR. 26, 2015	FINAL PLAN SUBMITTAL		KRK	FES
MAR. 13, 2015	FINAL REVIEW SUBMITTAL		KRK	FES
JAN. 29, 2015	PRELIMINARY PLAN SUBMITTAL		KRK	FES

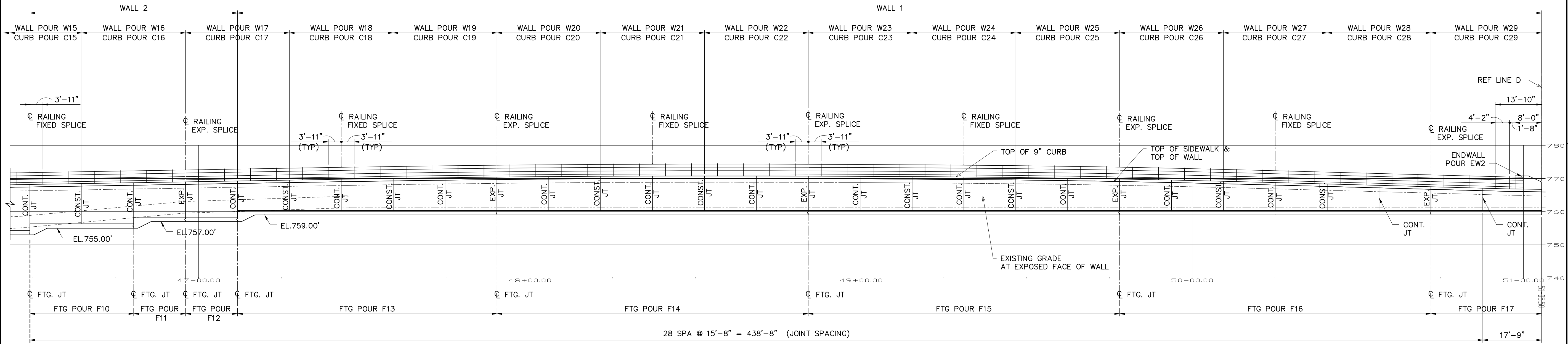
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
RETAINING WALL ELEVATION
SCALE AS NOTED
DRAWING No.
SHEET No.

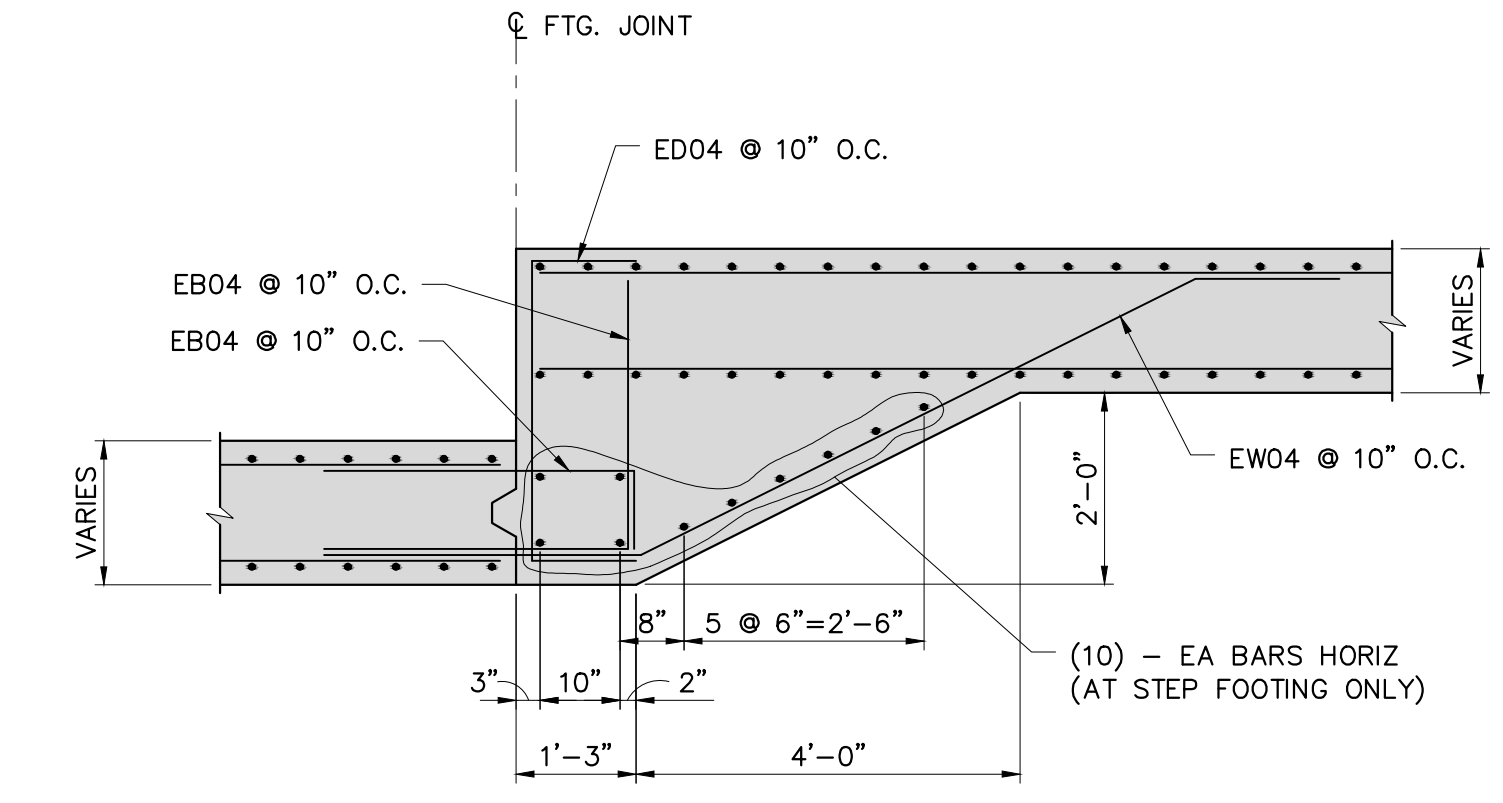


PARTIAL WALL ELEVATION
SCALE: 1/16"=1'-0"



PARTIAL WALL ELEVATION
SCALE: 1/16"=1'-0"

CONT. JT = CONTRACTION / CONTROL JOINT
CONST. JT = CONSTRUCTION JOINT
EXP. JT = EXPANSION JOINT
FTG. JT = FOOTING PAD CONSTRUCTION JOINT

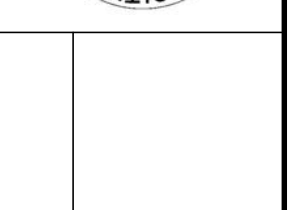


STEP FOOTING SECTION 1
SCALE: 1/2" = 1'-0"

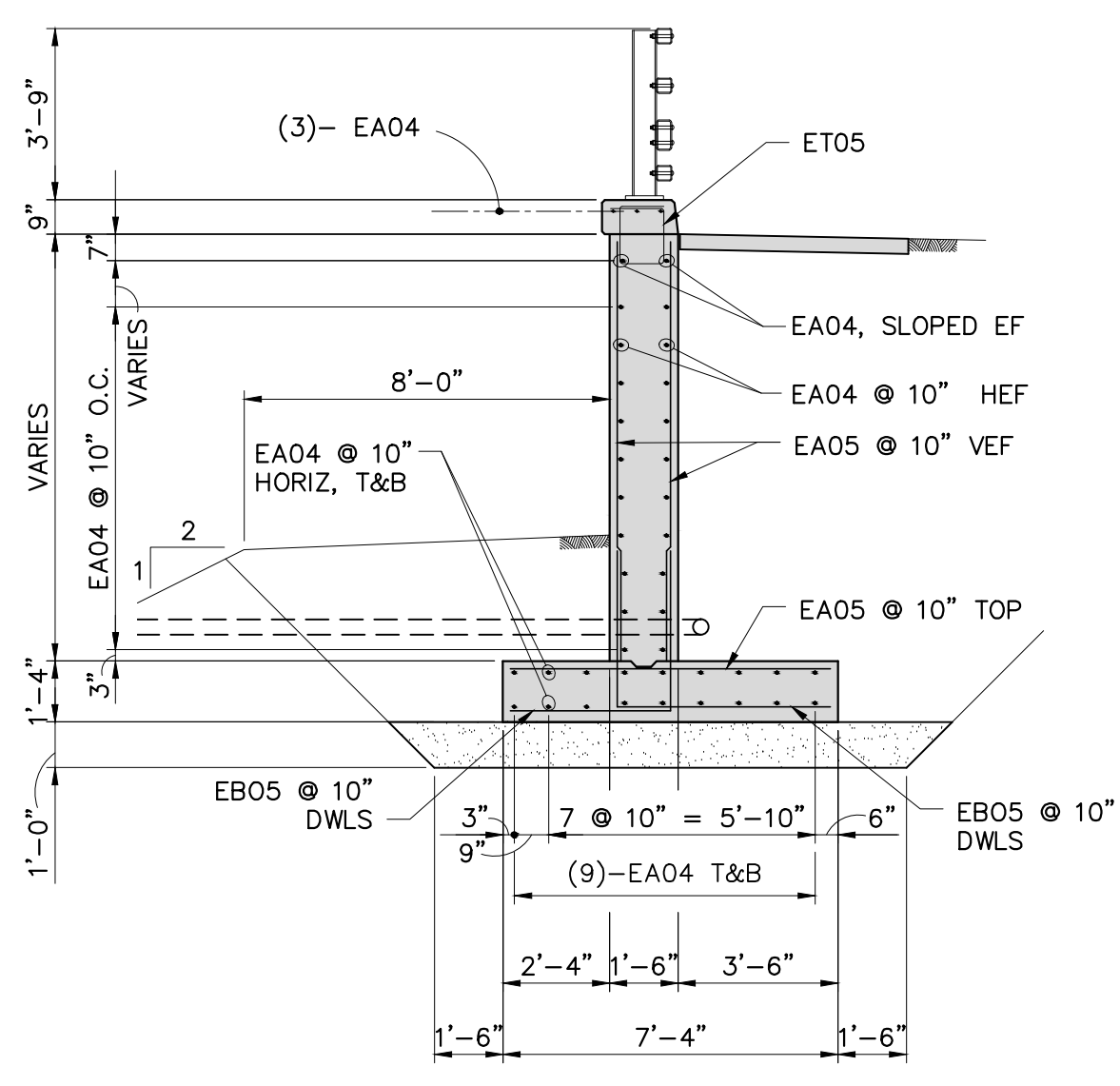
	CONCRETE QUANTITIES																												TOTAL	
	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	F13	F14	F15	F16	F17													
FOOTING POUR	37.2	37.3	16.1	7.0	15.3	16.8	57.4	54.7	23.1	15.3	8.7	6.6	30.2	34.1	34.1	34.1	12.2													440.2
WALL POUR	41.5	27.5	28.1	25.1	23.7	20.4	15.3	30.6	30.5	30.4	26.8	27.4	28.0	25.3	24.4	21.6	18.8	17.6	18.6	19.5	19.7	19.8	19.6	19.4	18.7	18.0	16.8	15.3	14.4	662.8
CURB POUR	1.8	1.8	1.8	1.8	1.8	1.8	1.2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	51.7	
ENDWALL POUR																											EW1	EW2		3.4
SUPPORT WALL POUR																											FW1	FW2		6.4
COUNTERFORT POUR																												4 x 5F		23.6
CONCRETE TOTAL =																												1188.1		

ISSUED FOR BIDS	APR. 22, 2015	CRK	FES	CHECKED
FINAL PLAN SUBMITTAL	MAR. 26, 2015	CRK	FES	DATE
FINAL REVIEW SUBMITTAL	MAR. 13, 2015	CRK	FES	
PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	CRK	FES	
REV.	DESCRIPTION	DATE	DRWN	

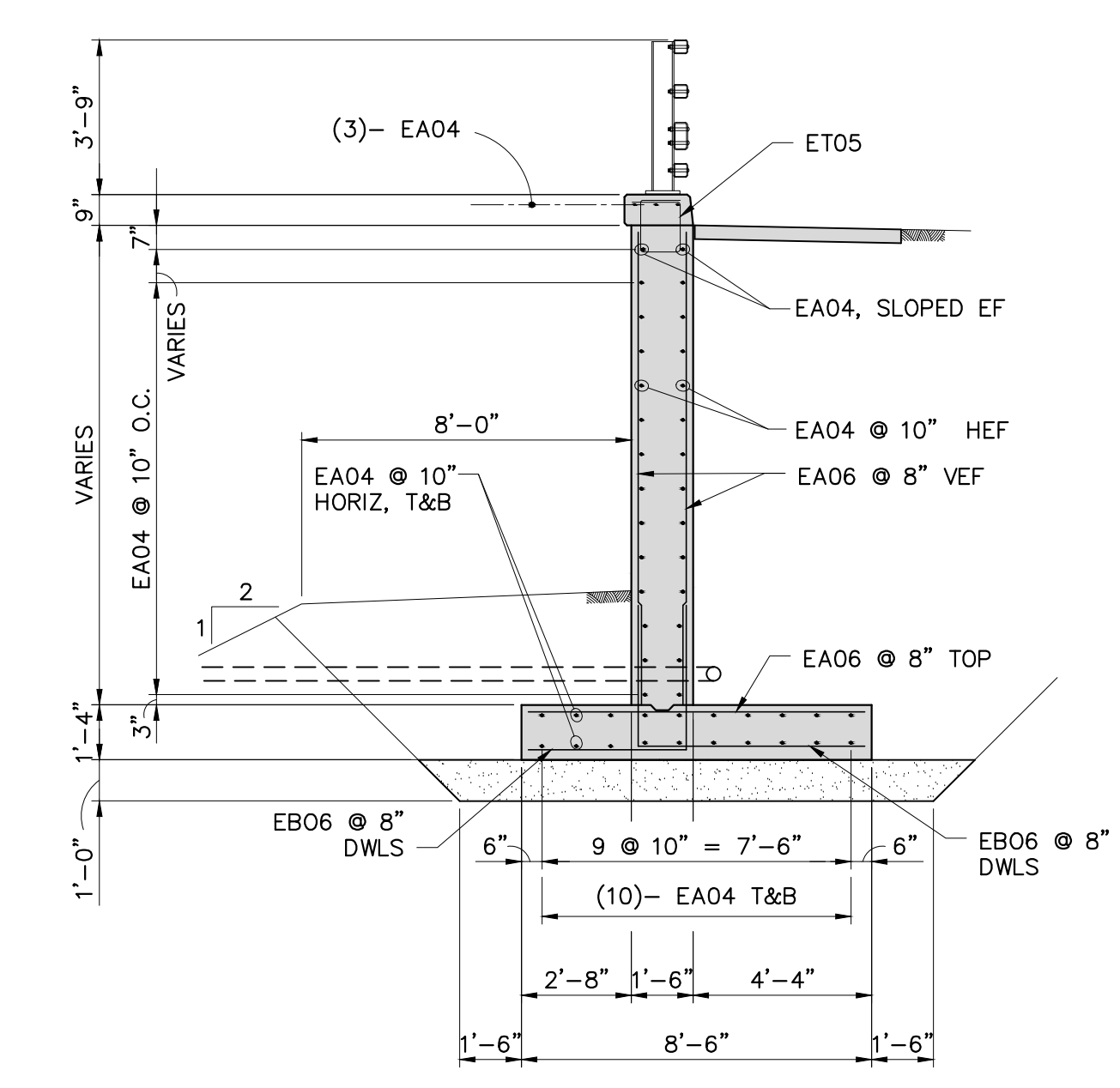
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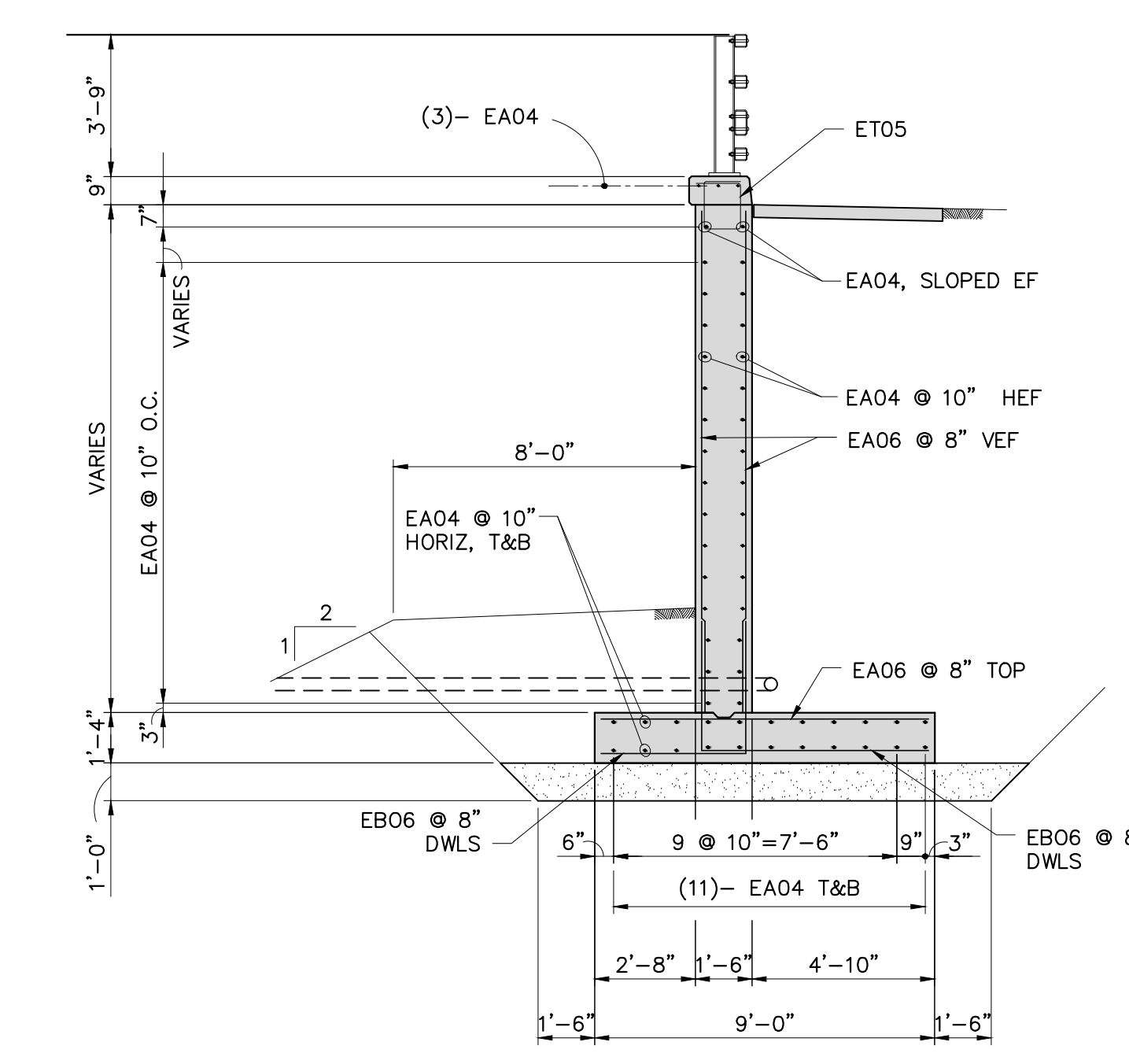
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
RETAINING WALL SECTIONS



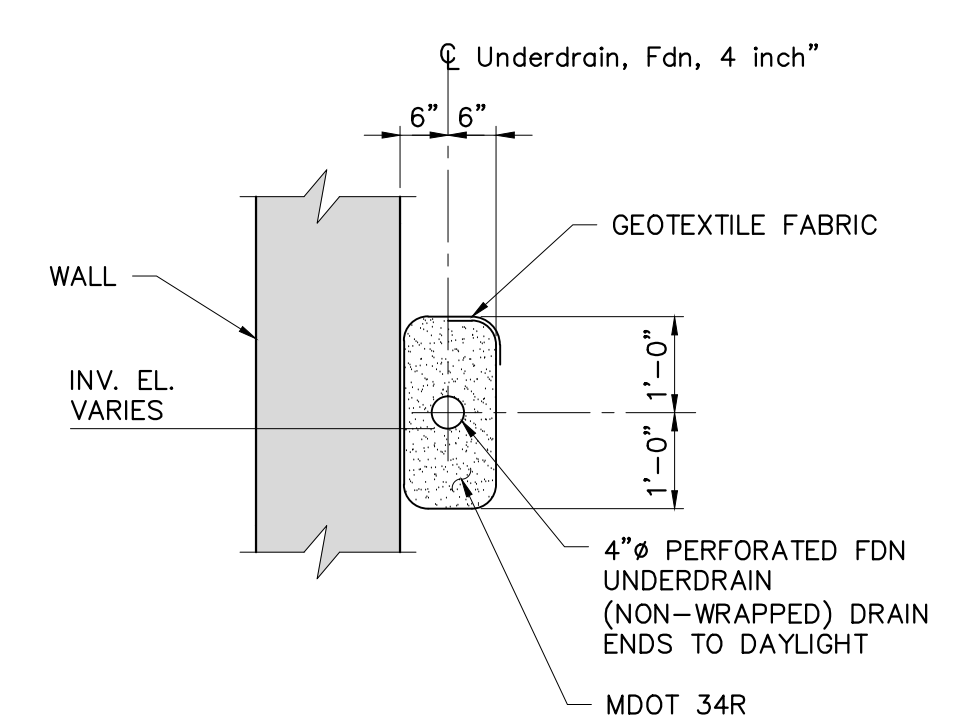
WALL 1 - TYPICAL SECTION
SCALE: 1/4" = 1'-0"



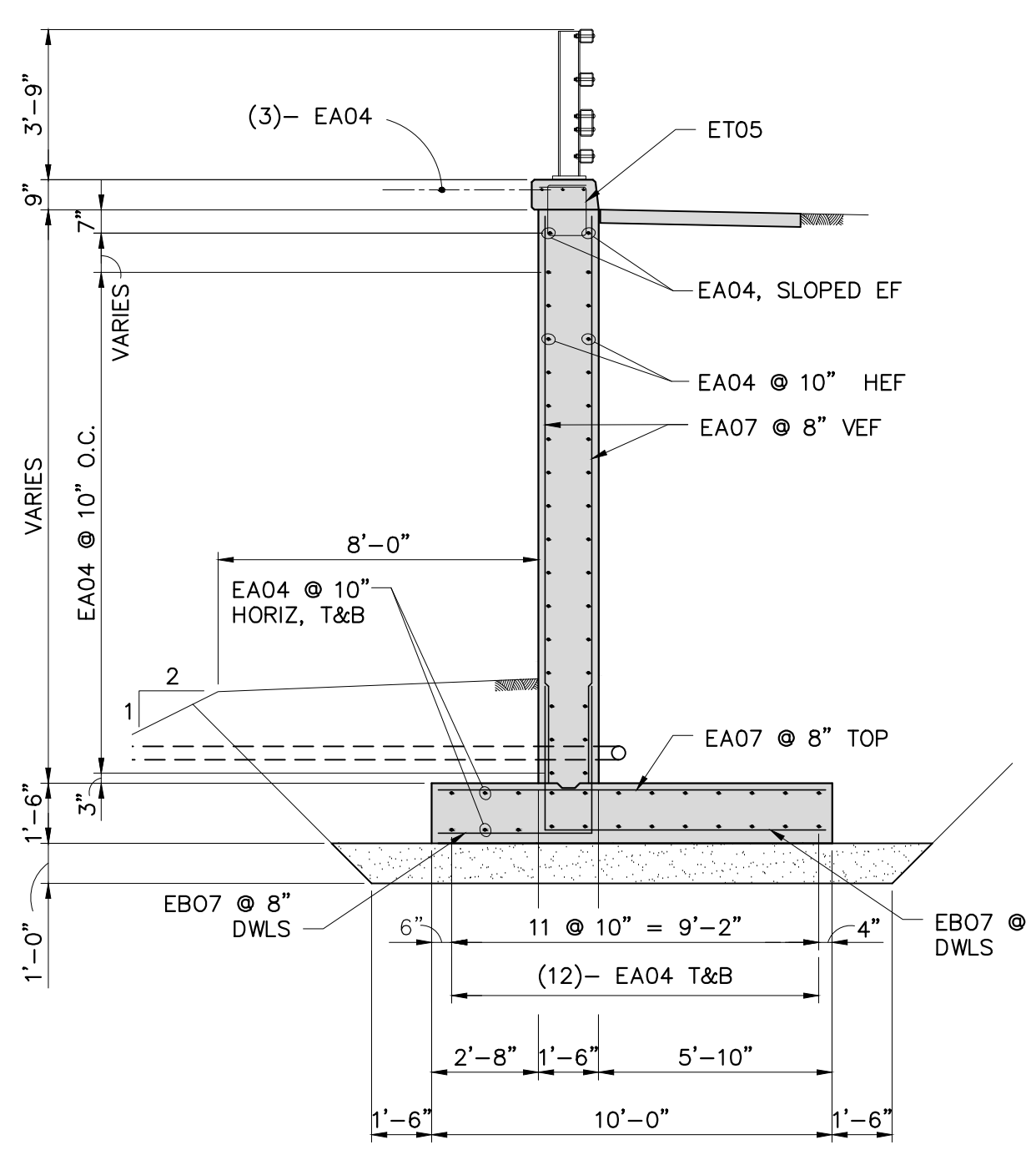
WALL 2 - TYPICAL SECTION
SCALE: 1/4" = 1'-0"



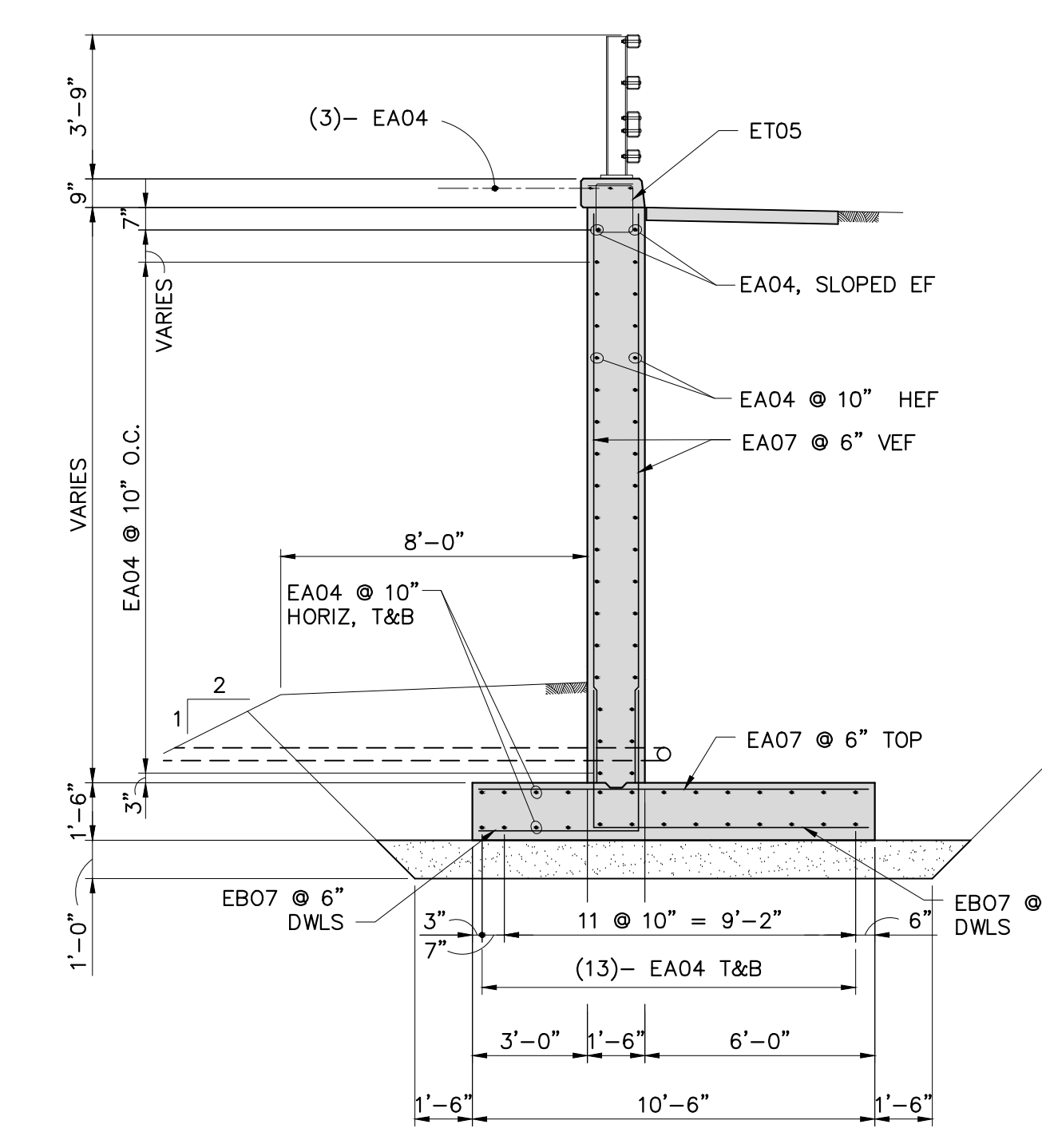
WALL 6 - TYPICAL SECTION
SCALE: 1/4" = 1'-0"



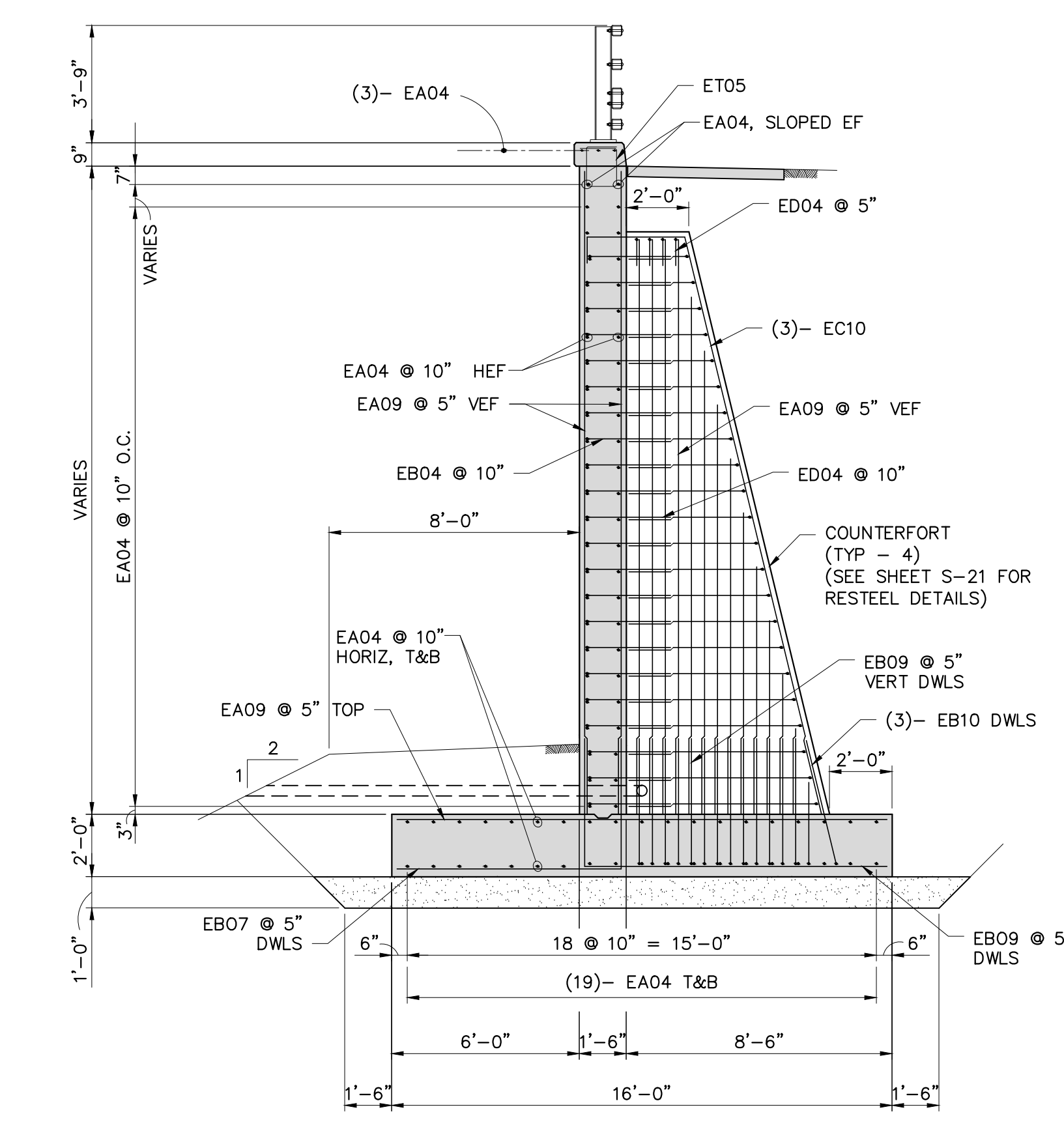
UNDERDRAIN FOUNDATION DETAIL
SCALE: 1/2" = 1'-0"



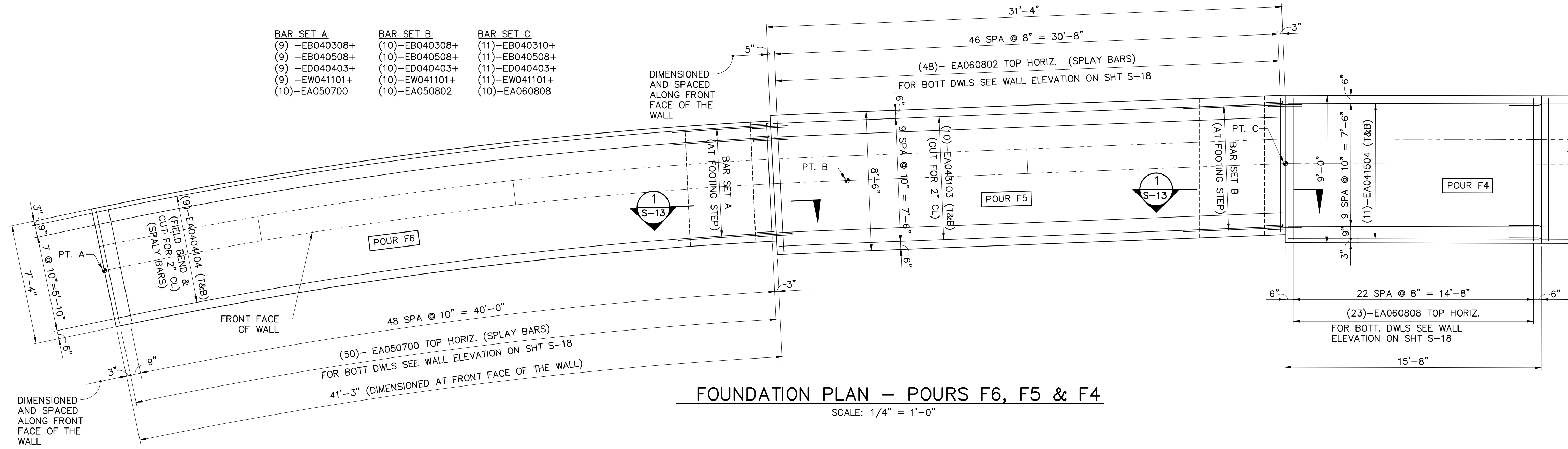
WALL 4 - TYPICAL SECTION
SCALE: 1/4" = 1'-0"



WALL 5 - TYPICAL SECTION
SCALE: 1/4" = 1'-0"

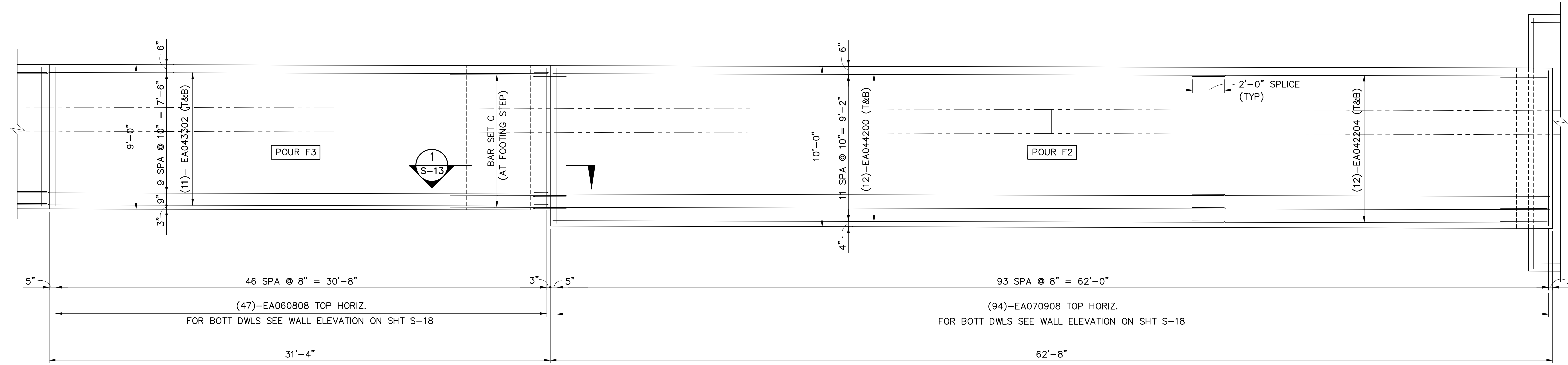


BAR SET A	BAR SET B	BAR SET C
(9) - EB040308+	(10) - EB040308+	(11) - EB040310+
(9) - EB040508+	(10) - EB040508+	(11) - EB040508+
(9) - ED040403+	(10) - ED040403+	(11) - ED040403+
(9) - EW041101+	(10) - EW041101+	(11) - EW041101+
(10) - EA050700	(10) - EA050802	(10) - EA060808



FOUNDATION PLAN - POURS F6, F5 & F4

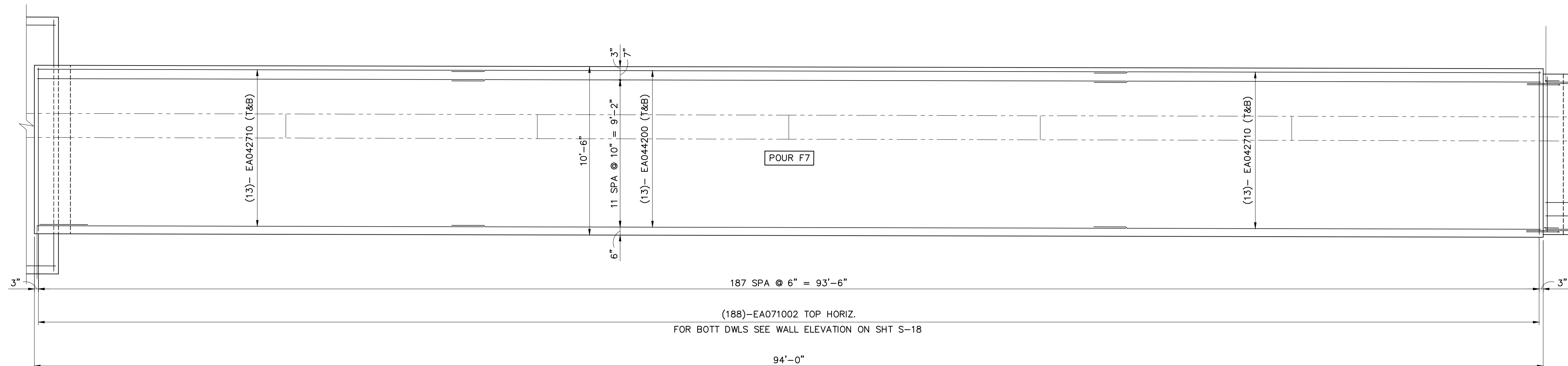
SCALE: 1/4" = 1'-0"



FOUNDATION PLAN - POURS F3 & F2

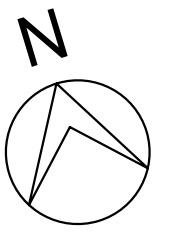
SCALE: 1/4" = 1'-0"

NOTE:
FOR FOUNDATION PLAN OF
POUR F1, SEE SHEET S-7.



FOUNDATION PLAN - POURS F7

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



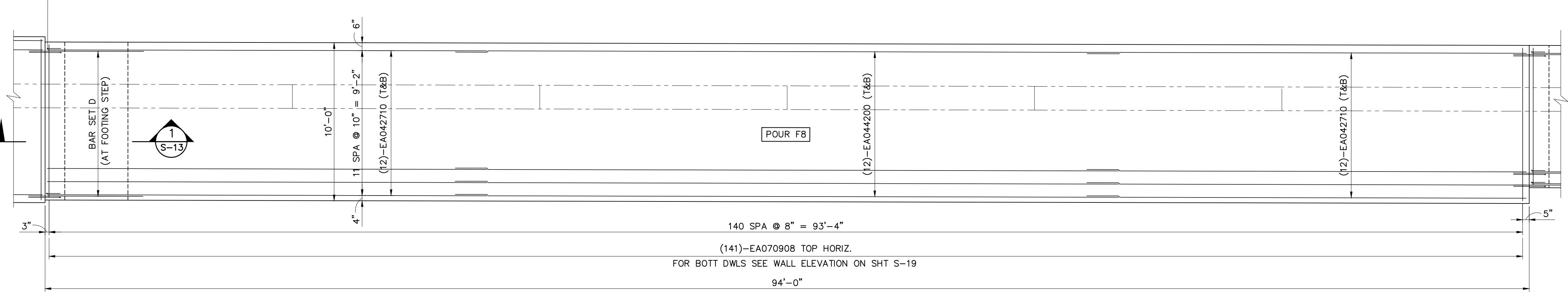
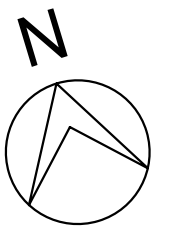
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FINAL REVIEW SUBMITTAL <td>MAR. 13, 2015</td> <td>CRK <td>FES <td></td> </td></td>	MAR. 13, 2015	CRK <td>FES <td></td> </td>	FES <td></td>	
PRELIMINARY PLAN SUBMITTAL <td>JAN. 29, 2015</td> <td>CRK <td>FES <td></td> </td></td>	JAN. 29, 2015	CRK <td>FES <td></td> </td>	FES <td></td>	
REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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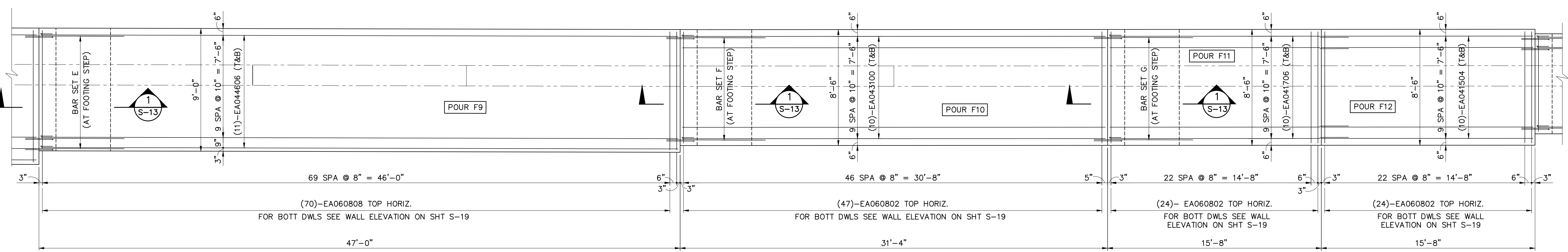
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
FOUNDATION PLAN

SCALE AS NOTED
SHEET No. 175 OF 187

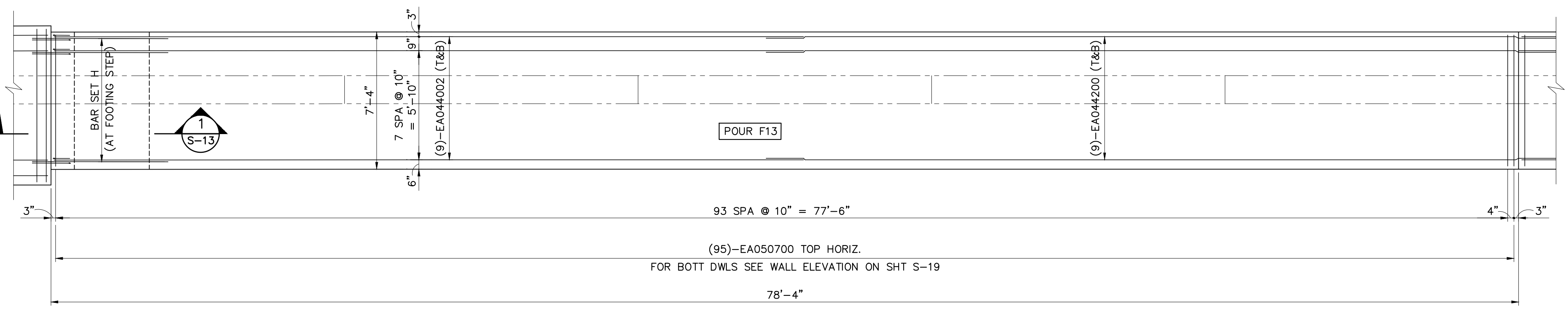
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|------------------|------------------|------------------|------------------|------------------|
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| (12)-EB040510+ | (11)-EB040508+ | (10)-EB040508+ | (10)-EB040508+ | (9) -EB040508+ |
| (12)-ED040405+ | (11)-ED040403+ | (10)-ED040403+ | (10)-ED040403+ | (9) -ED040403+ |
| (12)-EW041106+ | (11)-EW041101+ | (10)-EW041101+ | (10)-EW041101+ | (9) -EW041101+ |
| (10)-EA070908 | (10)-EA060808 | (10)-EA060802 | (10)-EA060802 | (10)-EA070700 |



FOUNDATION PLAN – POUR F8
SCALE: 1/4" = 1'-0"



FOUNDATION PLAN – POUR F9, F10, F11, F12
SCALE: 1/4" = 1'-0"



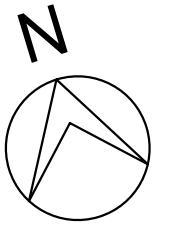
FOUNDATION PLAN – POUR F13
SCALE: 1/4" = 1'-0"

ISSUED FOR BIDS	APR. 22, 2015	CRK	FES	CHECKED
FINAL PLAN SUBMITTAL <td>MAR. 26, 2015</td> <td>CRK <td>FES <td>DRAWN</td> </td></td>	MAR. 26, 2015	CRK <td>FES <td>DRAWN</td> </td>	FES <td>DRAWN</td>	DRAWN
FINAL REVIEW SUBMITTAL <td>MAR. 13, 2015</td> <td>CRK <td>FES <td></td> </td></td>	MAR. 13, 2015	CRK <td>FES <td></td> </td>	FES <td></td>	
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REV. DESCRIPTION <td>DATE <td>DRAWN <td>FES <td></td> </td></td></td>	DATE <td>DRAWN <td>FES <td></td> </td></td>	DRAWN <td>FES <td></td> </td>	FES <td></td>	

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GEDDES AVENUE IMPROVEMENTS
FOUNDATION PLAN

SCALE AS NOTED
SHEET No.
DRAWING No.



ISSUED FOR BIDS	APR. 22, 2015	CRK	FES
FINAL PLAN SUBMITTAL	MAR. 26, 2015	CRK	FES
FINAL REVIEW SUBMITTAL	MAR. 13, 2015	CRK	FES
PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	CRK	FES
REV.	DESCRIPTION	DRAWN	CHECKED

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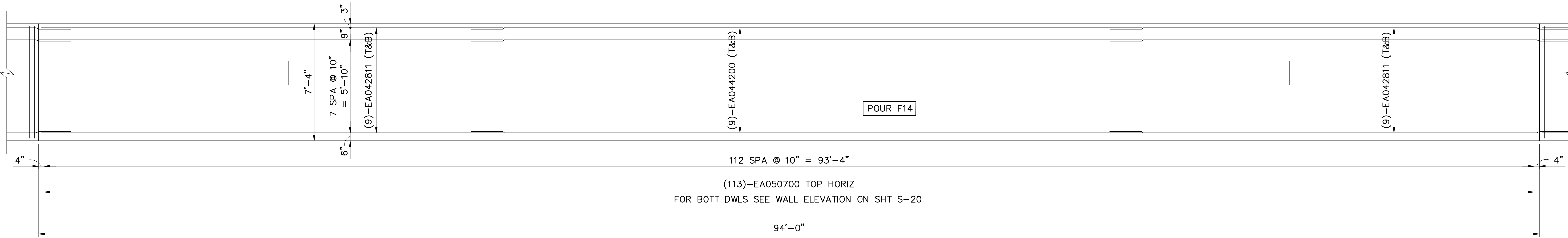
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DATE	DATE
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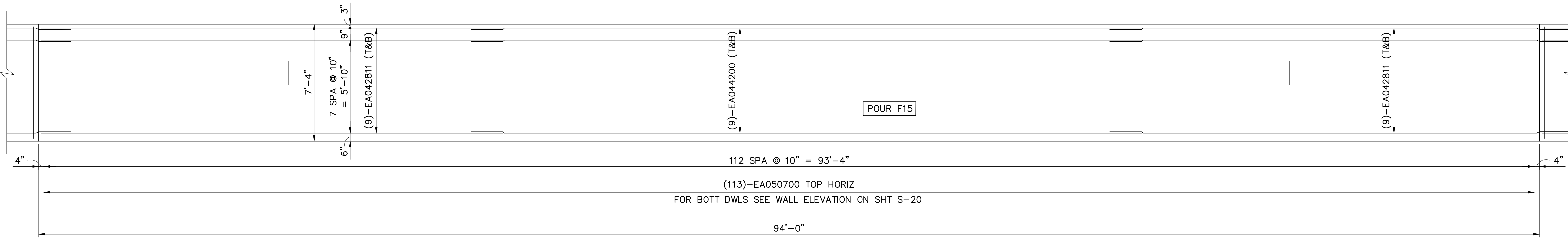
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DATE	DATE
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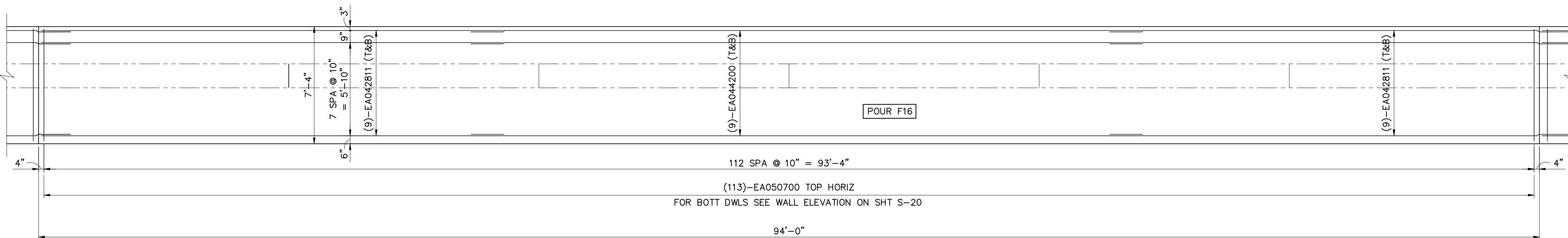
DATE	DATE
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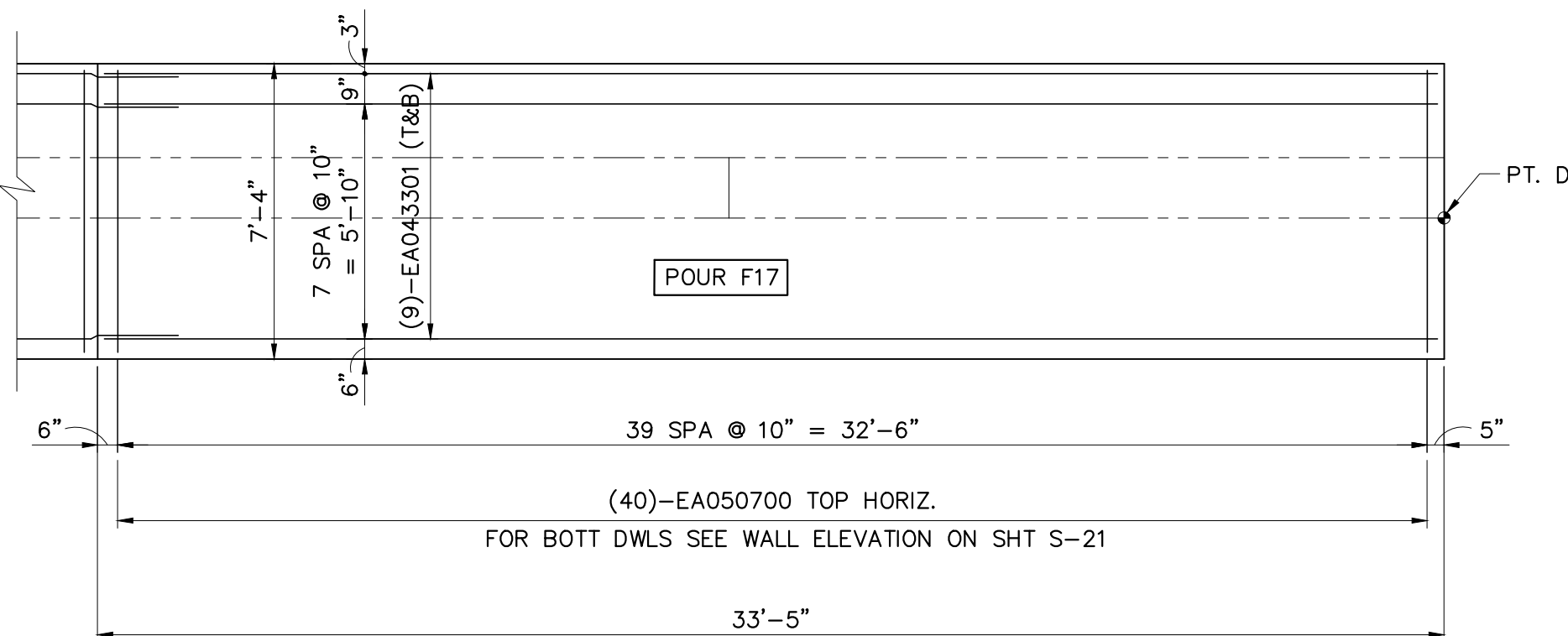
FOUNDATION PLAN – POUR F14
SCALE: 1/4" = 1'-0"



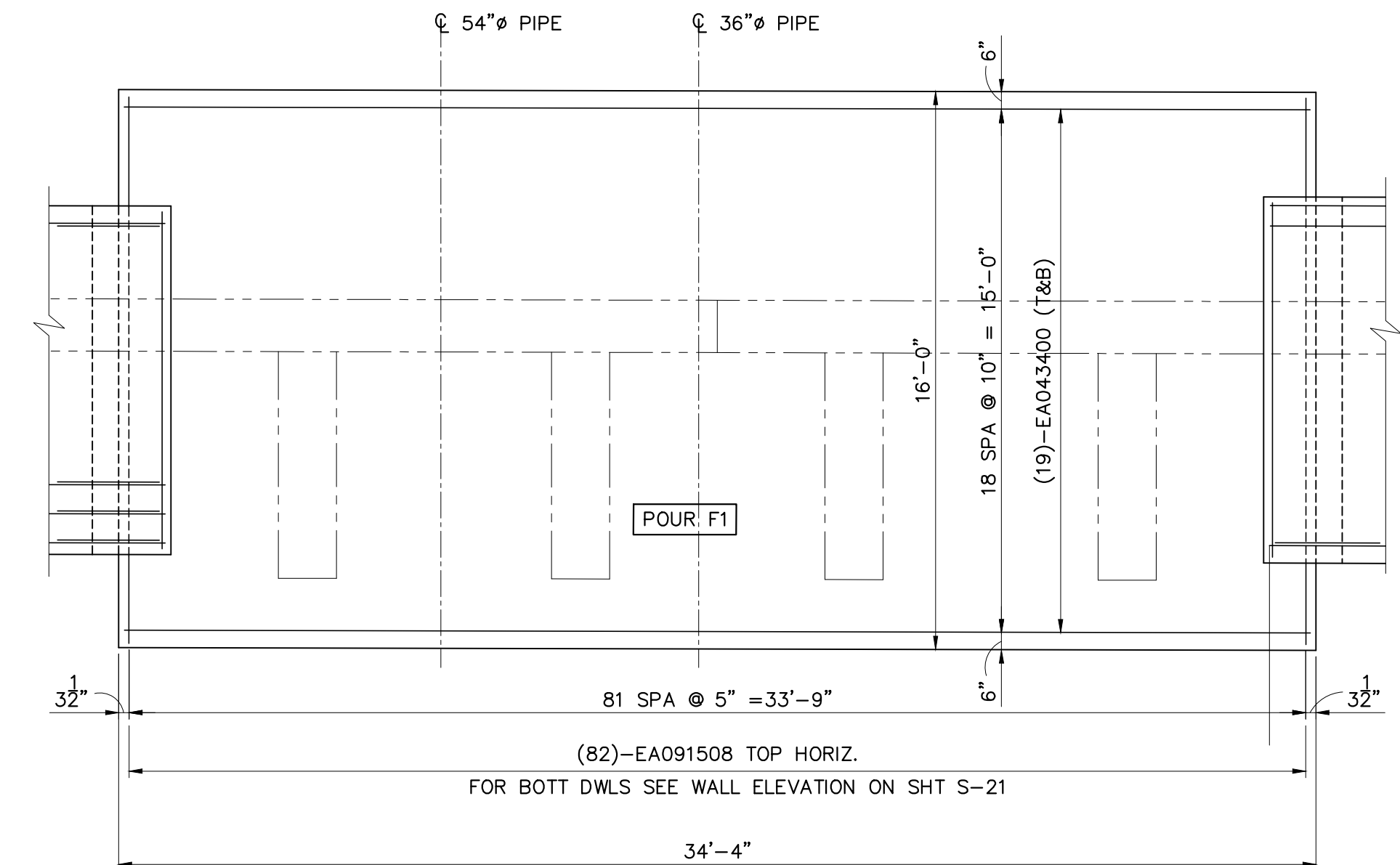
FOUNDATION PLAN – POUR F15
SCALE: 1/4" = 1'-0"



FOUNDATION PLAN – POUR F16
SCALE: 1/4" = 1'-0"



FOUNDATION PLAN – POUR F17
SCALE: 1/4" = 1'-0"



FOUNDATION PLAN – POUR F1
SCALE: 1/4" = 1'-0"

PROJECT MANAGEMENT – PUBLIC SERVICES – CITY OF ANN ARBOR
GEDES AVENUE IMPROVEMENTS
FOUNDATION PLAN
SCALE AS NOTED
SHEET No. 177 OF 187
DRAWING No.



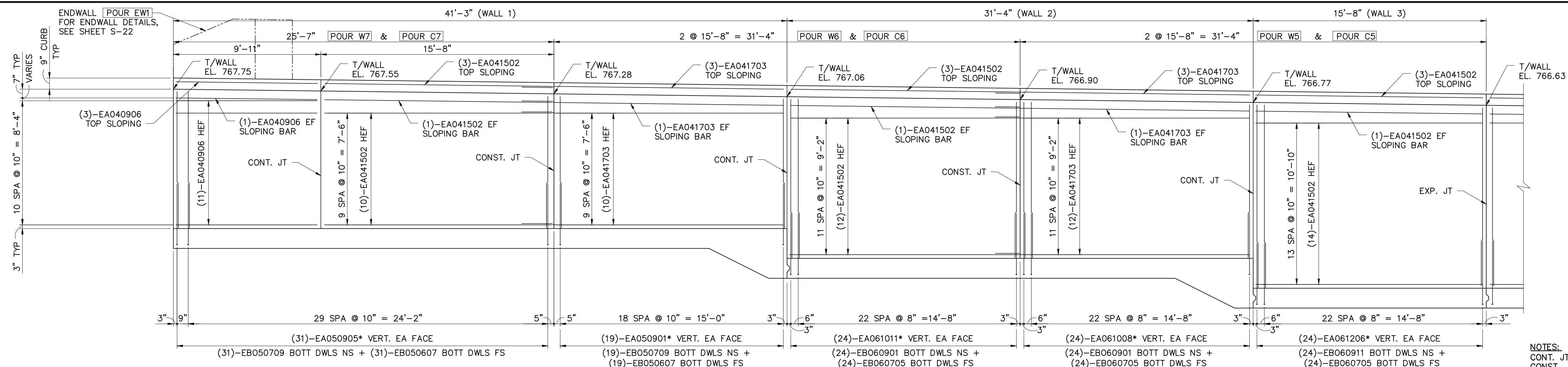
Know what's below. Call before you dig.

ISSUED FOR BIDS	APR. 22, 2015	DATE	DRAWN	CHECKED
FINAL PLAN SUBMITTAL	MAR. 26, 2015	DATE	DRAWN	CHECKED
FINAL REVIEW SUBMITTAL	MAR. 13, 2015	DATE	DRAWN	CHECKED
PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	DATE	DRAWN	CHECKED
DESCRIPTION				

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
WALL ELEVATIONS

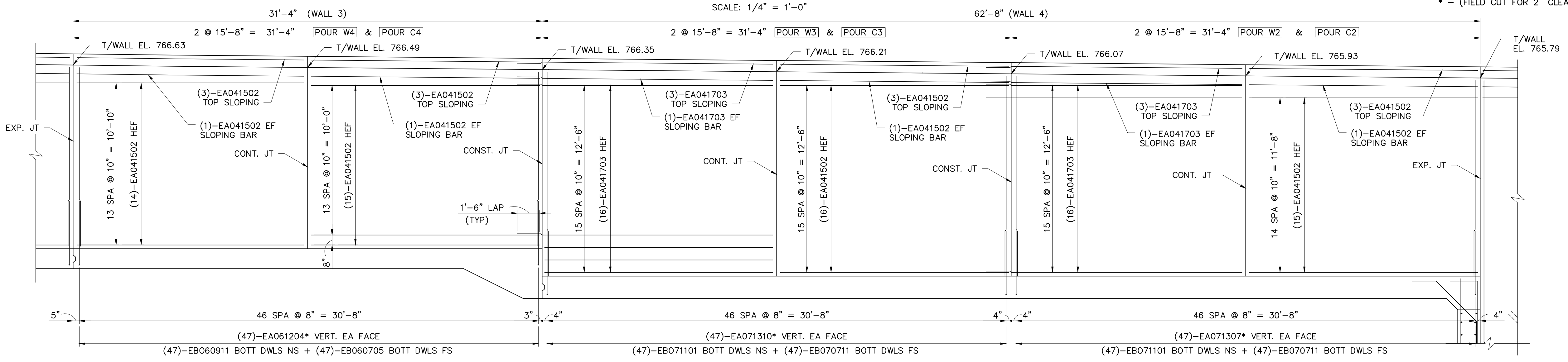
SCALE AS NOTED
DRAWING No.
SHEET No.



WALL ELEVATION - POURS W7, W6 & W5

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

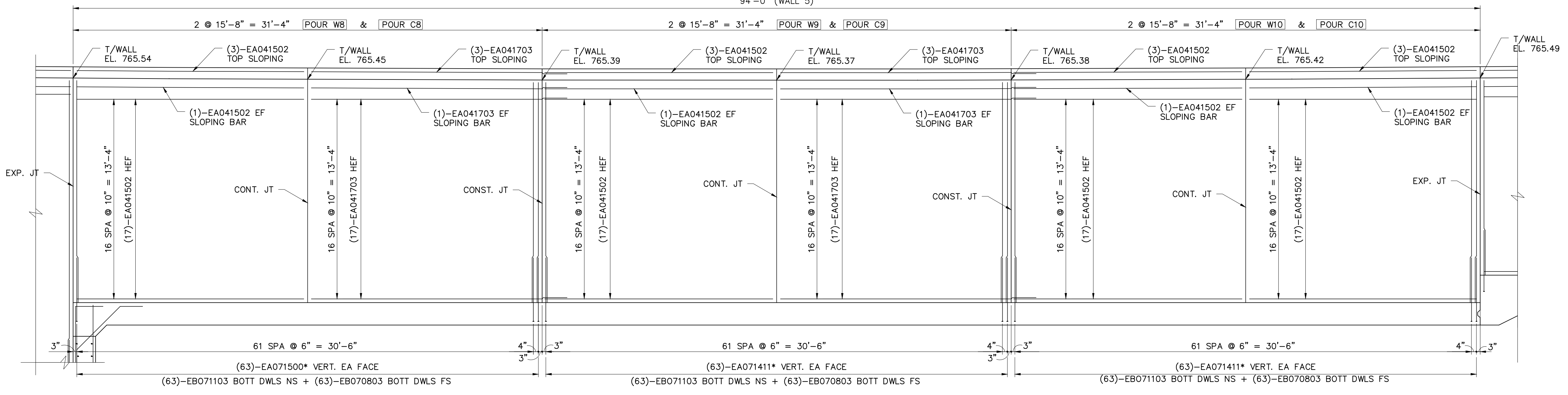
NOTES:
CONT. JT = CONTRACTION / CONTROL JOINT
CONST. JT = CONSTRUCTION JOINT
EXP. JT = EXPANSION JOINT
FOR JOINT DETAILS SEE SHEET S-22.
* - (FIELD CUT FOR 2" CLEAR)



WALL ELEVATION - POURS W4, W3 & W2

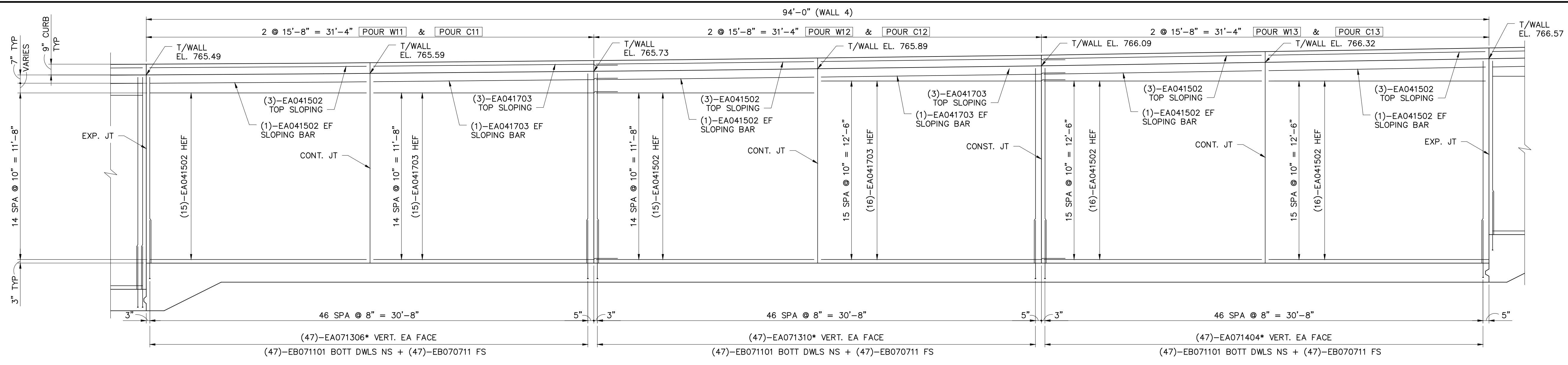
SCALE: 1/4" = 1'-0"

NOTE:
FOR WALL ELEVATION OF POUR W1 AND CURB POUR C1 SEE SHEET S-21.



WALL ELEVATION - POURS W8, W9 & W10

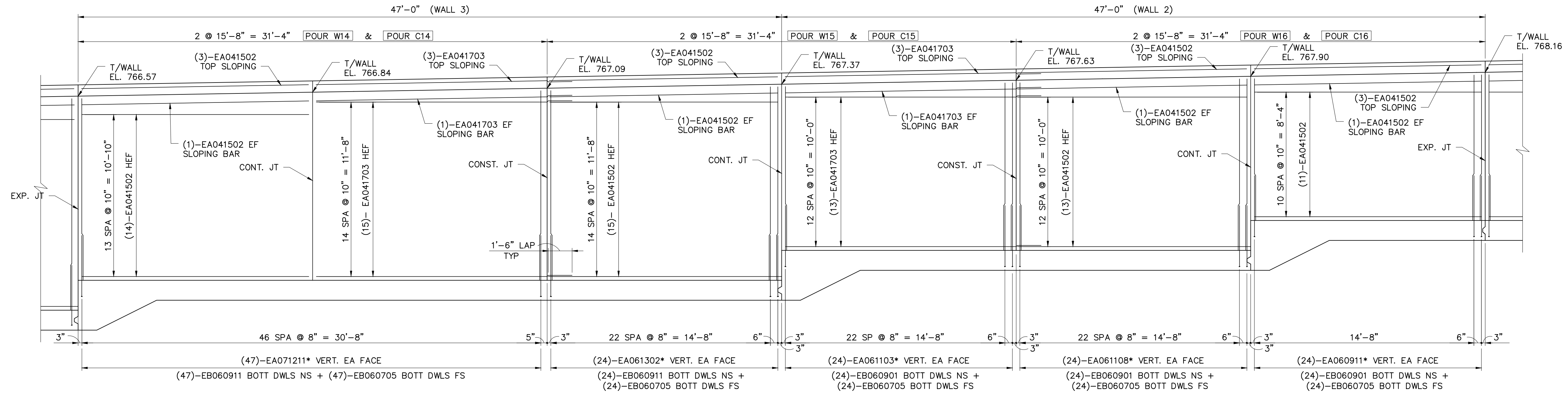
SCALE: 1/4" = 1'-0"



WALL ELEVATION - POURS W11, W12 & W13

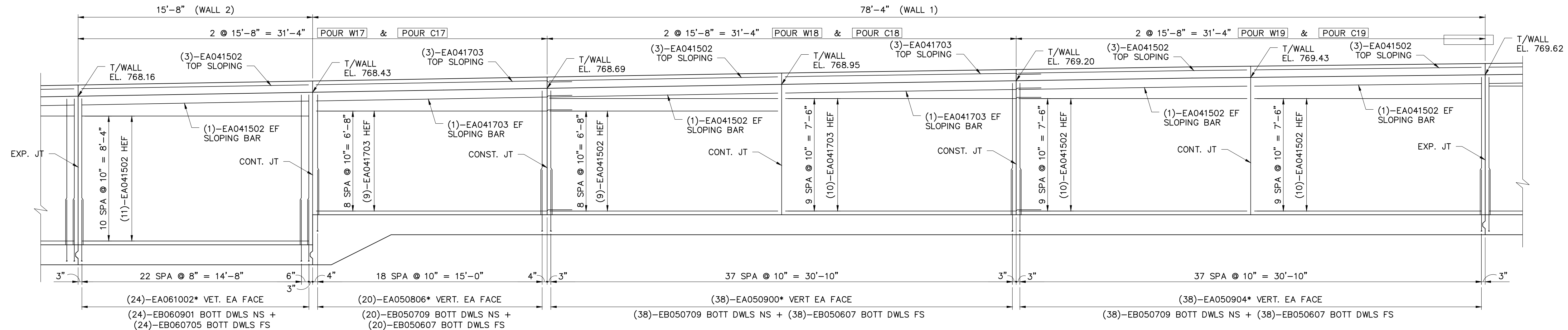
SCALE: 1/4" = 1'-0"

NOTES:
 CONT. JT = CONTRACTION / CONTROL JOINT
 CONST. JT = CONSTRUCTION JOINT
 EXP. JT = EXPANSION JOINT
 FOR JOINT DETAILS SEE SHEET S-22.
 * - (FIELD CUT FOR 2" CLEAR)



WALL ELEVATION - POURS W14, W15 & W16

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



WALL ELEVATION - POURS W17, W18 & W19

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

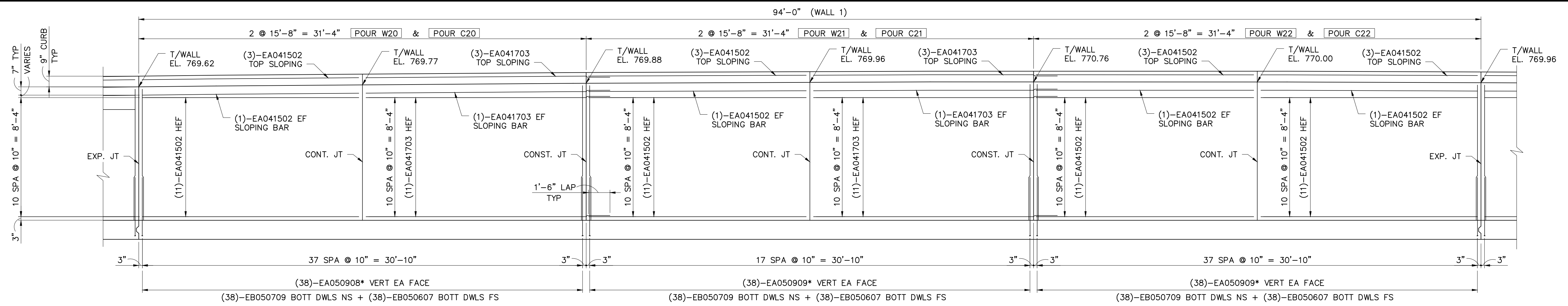


ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	FINAL REVIEW SUBMITTAL	PRELIMINARY PLAN SUBMITTAL	DESCRIPTION	DATE	DRAWN	CHECKED
					APR. 22, 2015	KRK	FES
					MAR. 26, 2015	KRK	FES
					MAR. 13, 2015	KRK	FES
					JAN. 29, 2015	KRK	FES

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 GEDDES AVENUE IMPROVEMENTS
WALL ELEVATIONS

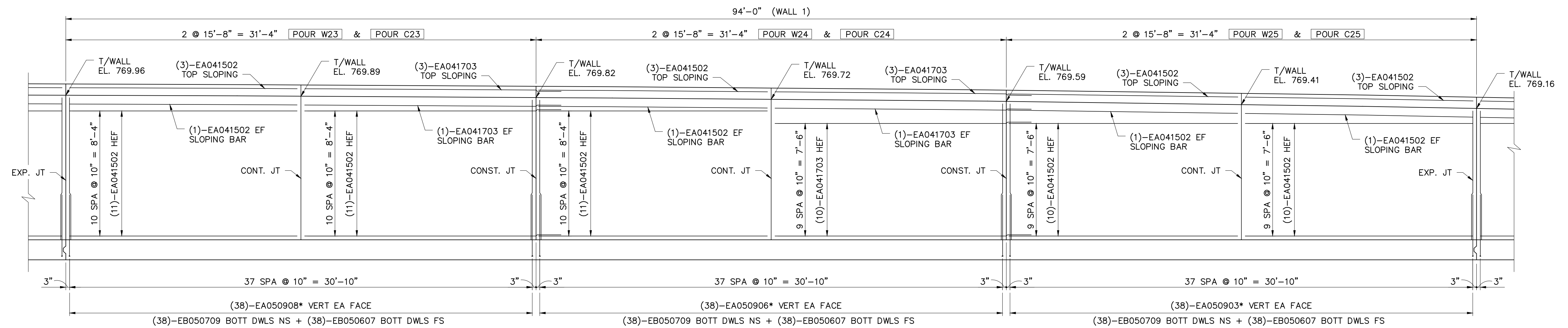
SCALE AS NOTED
 DRAWING No.
 SHEET No.



WALL ELEVATION - POURS W20, W21 & W22

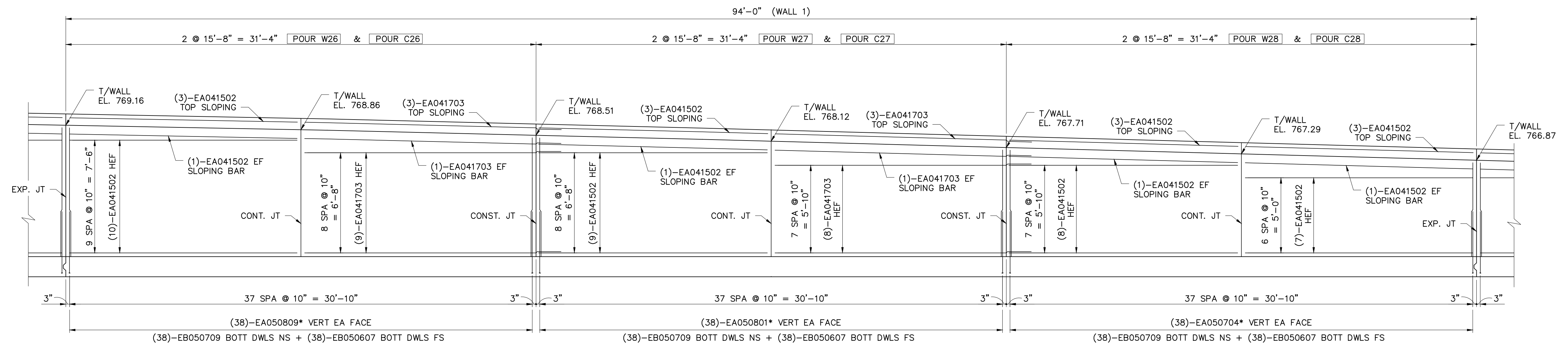
SCALE: 1/4" = 1'-0"

NOTES:
 CONT. JT = CONTRACTION / CONTROL JOINT
 CONST. JT = CONSTRUCTION JOINT
 EXP. JT = EXPANSION JOINT
 FOR JOINT DETAILS SEE SHEET S-22.
 * - (FIELD CUT FOR 2" CLEAR)



WALL ELEVATION - POURS W23, W24 & W25

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



WALL ELEVATION - POURS W26, W27 & W28

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



Know what's below. Call before you dig.

ISSUED FOR	DATE	DRWN	CHECKED
ISSUED FOR BIDS	APR. 22, 2015	KRK	FES
FINAL PLAN SUBMITTAL	MAR. 26, 2015	KRK	FES
FINAL REVIEW SUBMITTAL	MAR. 13, 2015	KRK	FES
PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	KRK	FES
DESCRIPTION			

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 GEDDES AVENUE IMPROVEMENTS
WALL ELEVATIONS

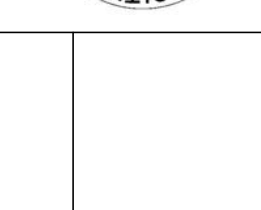
SCALE AS NOTED
 SHEET No.



Know what's below. Call before you dig.

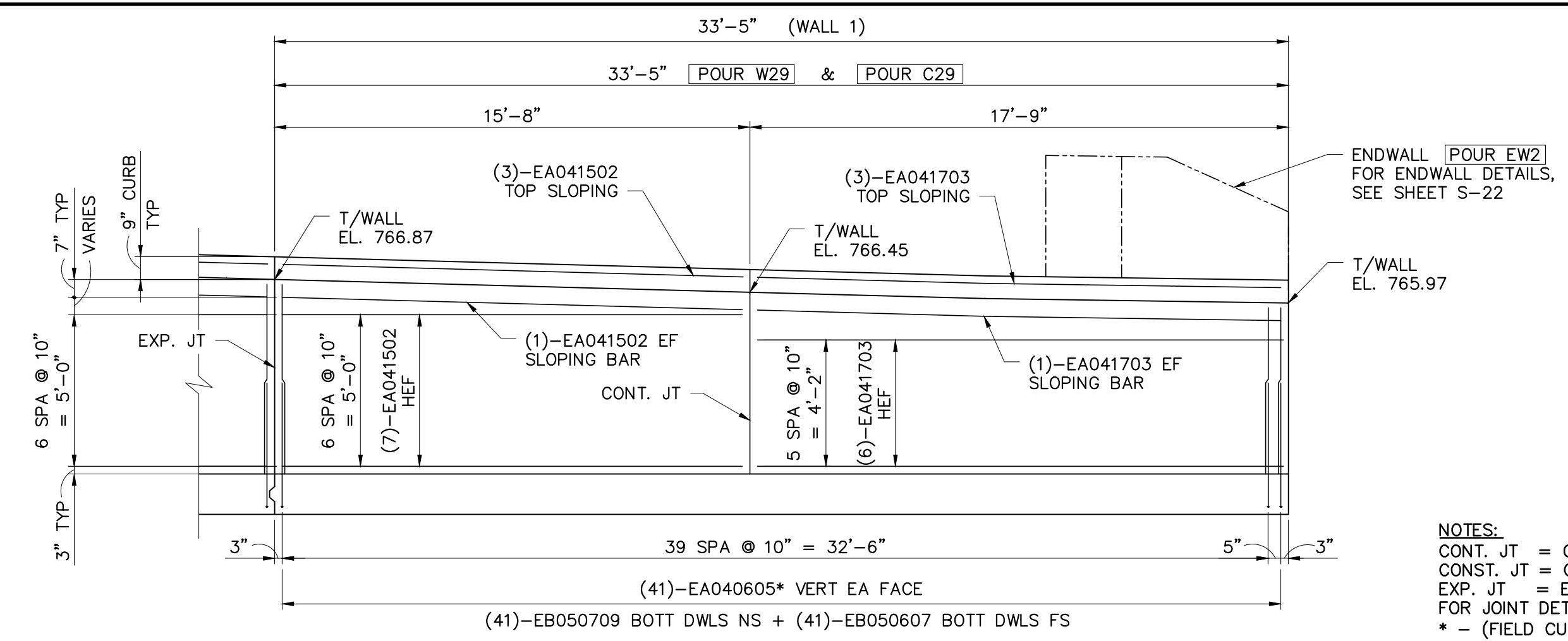
ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	FINAL REVIEW SUBMITTAL	PRELIMINARY PLAN SUBMITTAL	REV.	DESCRIPTION	DATE	DRAWN	CHECKED

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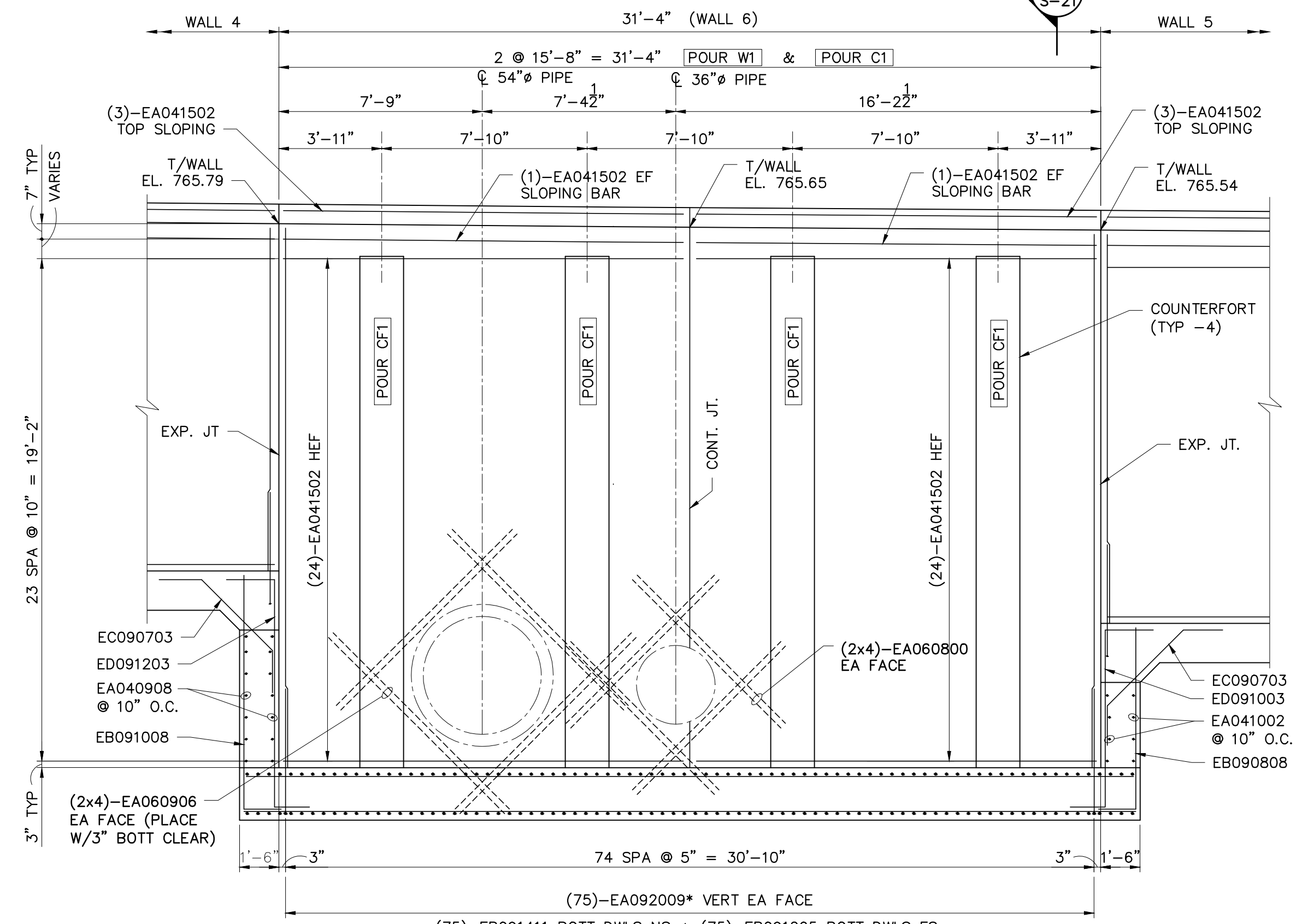


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
WALL ELEVATIONS

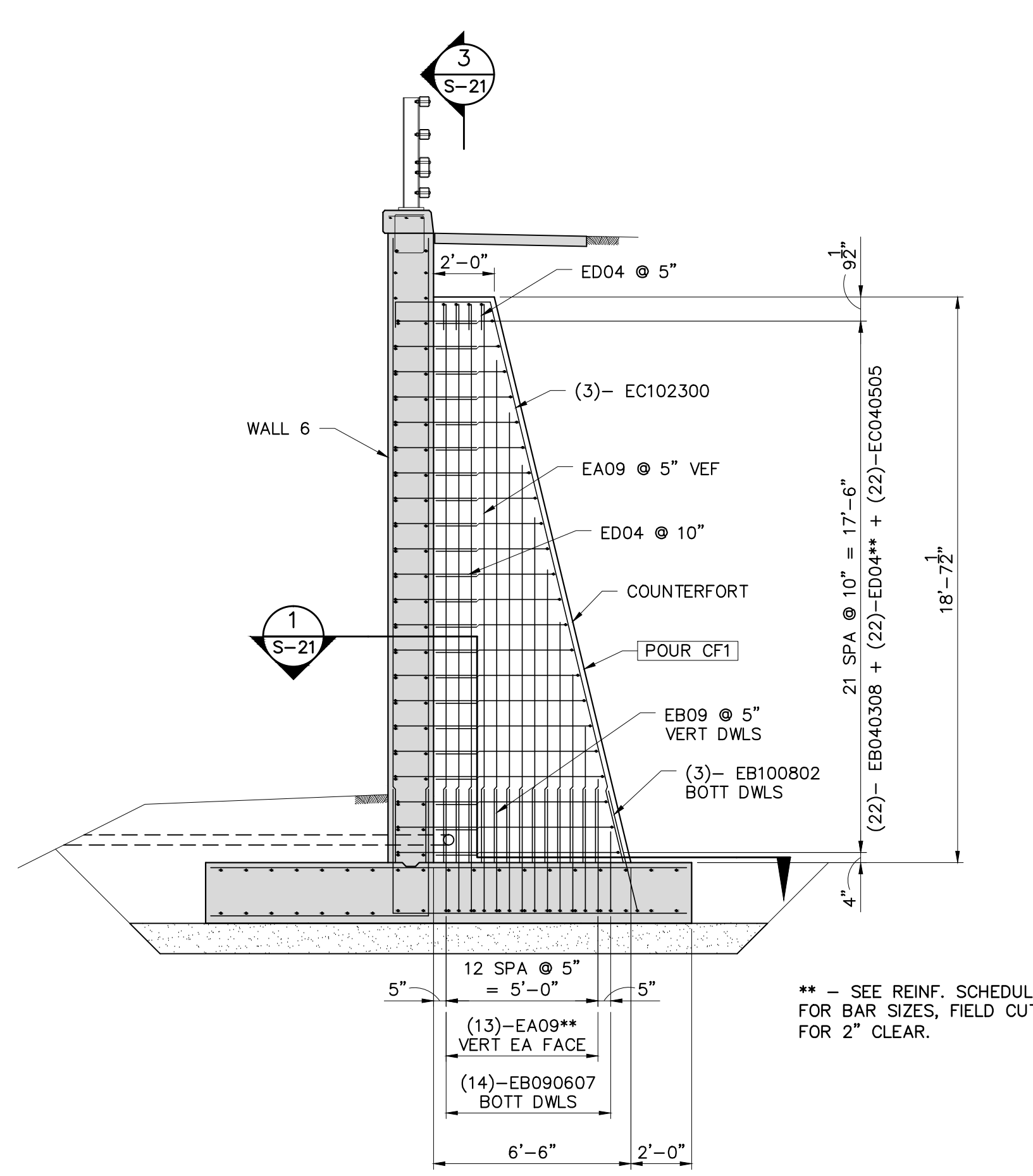
SCALE AS NOTED
DRAWING No.
SHEET No.



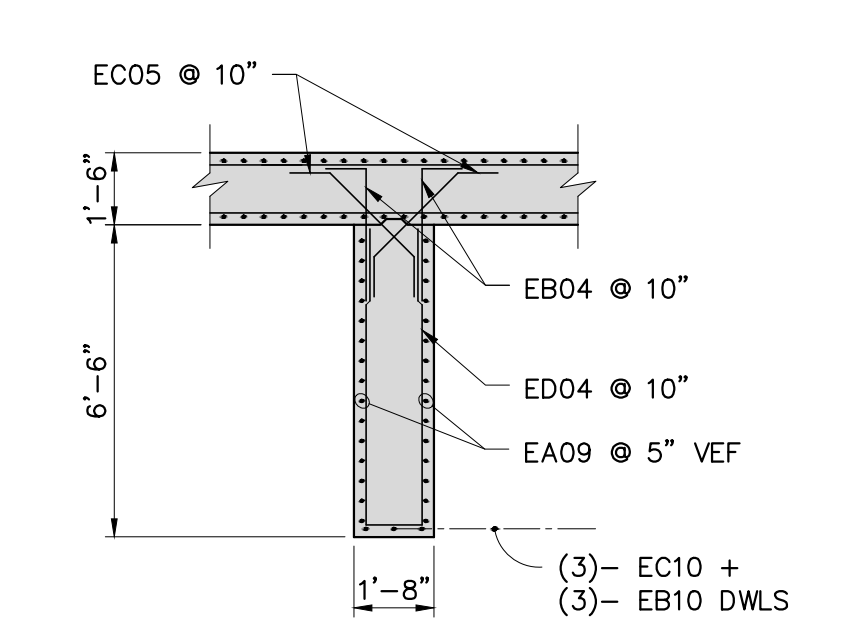
WALL ELEVATION - POUR W29
SCALE: 1/4" = 1'-0"



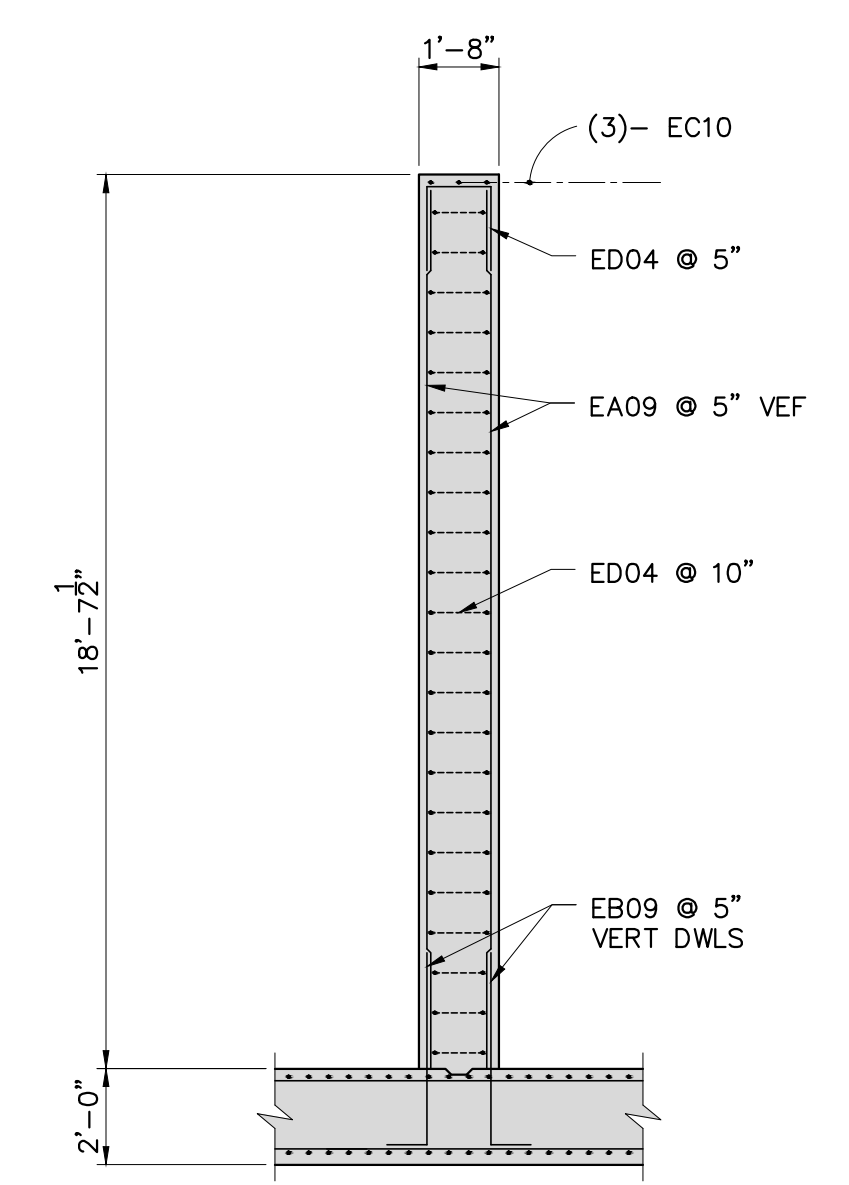
WALL ELEVATION - POUR W1
SCALE: 1/4" = 1'-0"



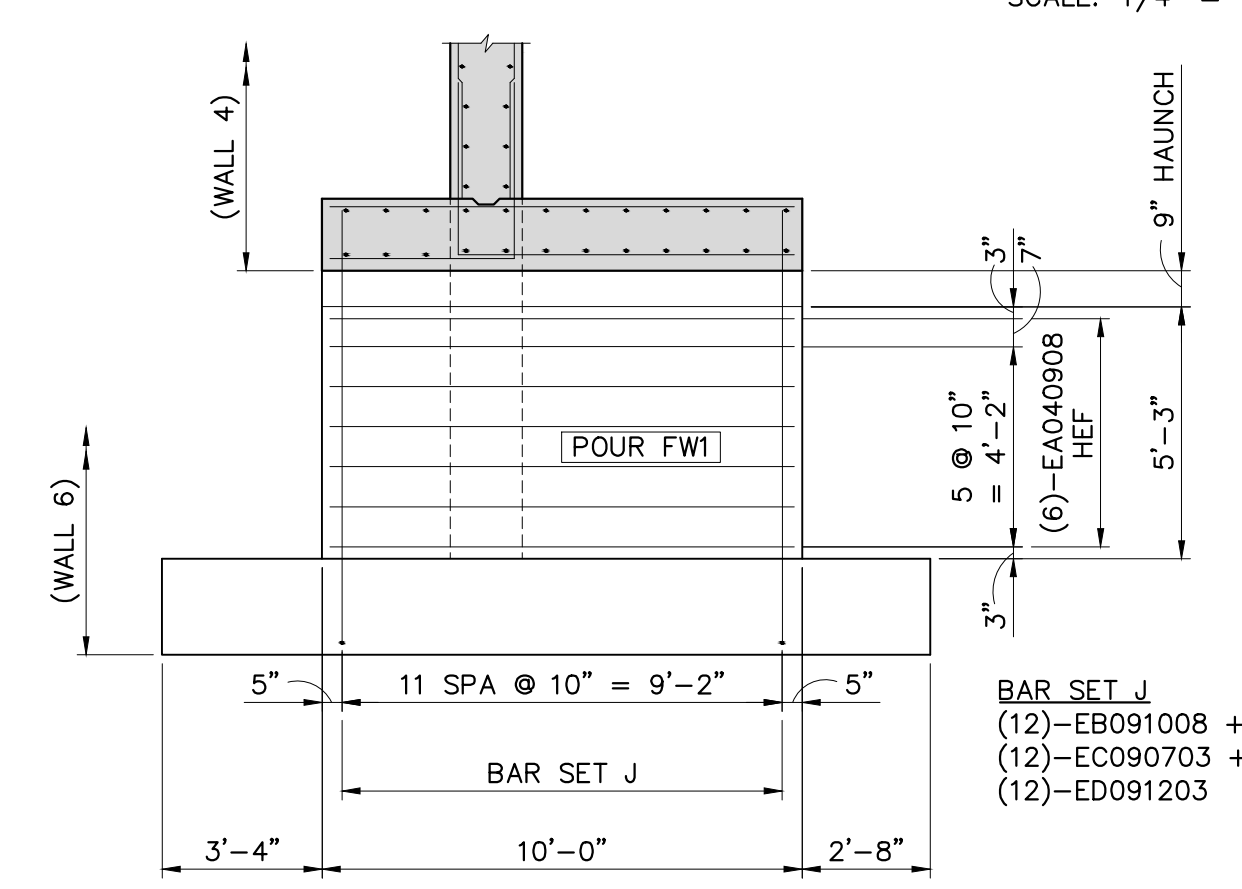
COUNTERFORT ELEVATION - POUR CF1
SCALE: 1/4" = 1'-0"



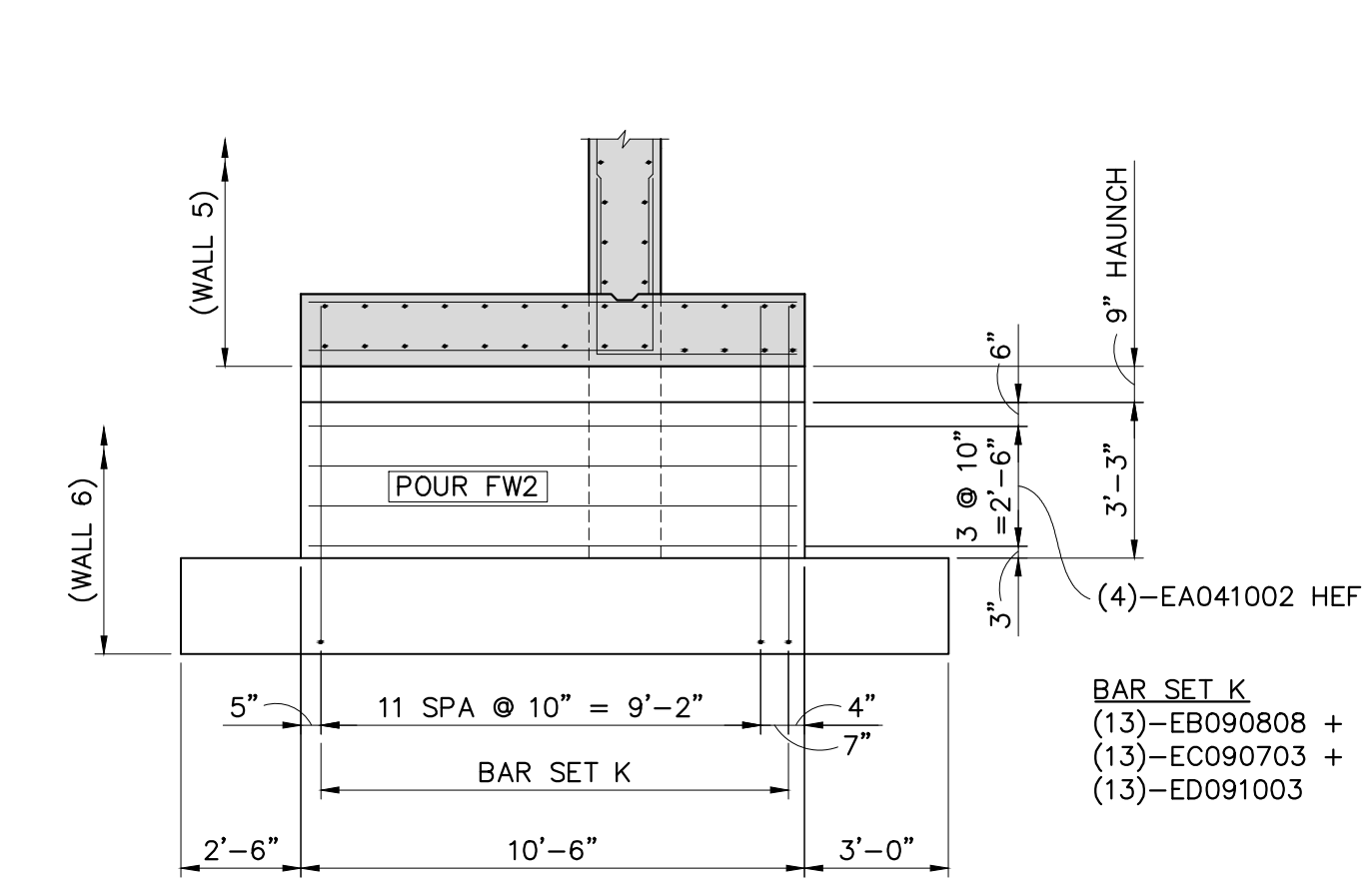
SECTION 1
SCALE: 1/4" = 1'-0"



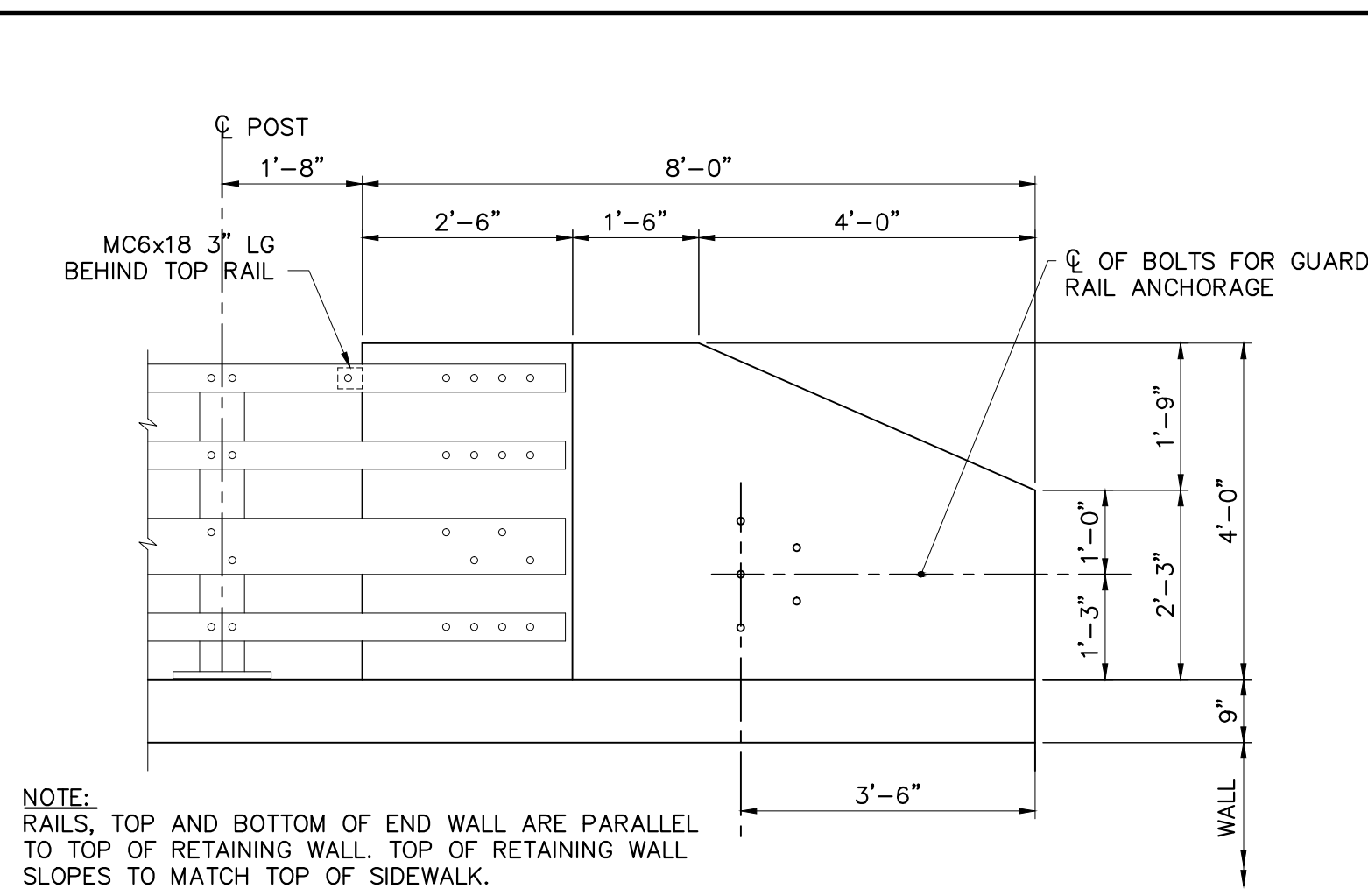
SECTION 3
SCALE: 1/4" = 1'-0"



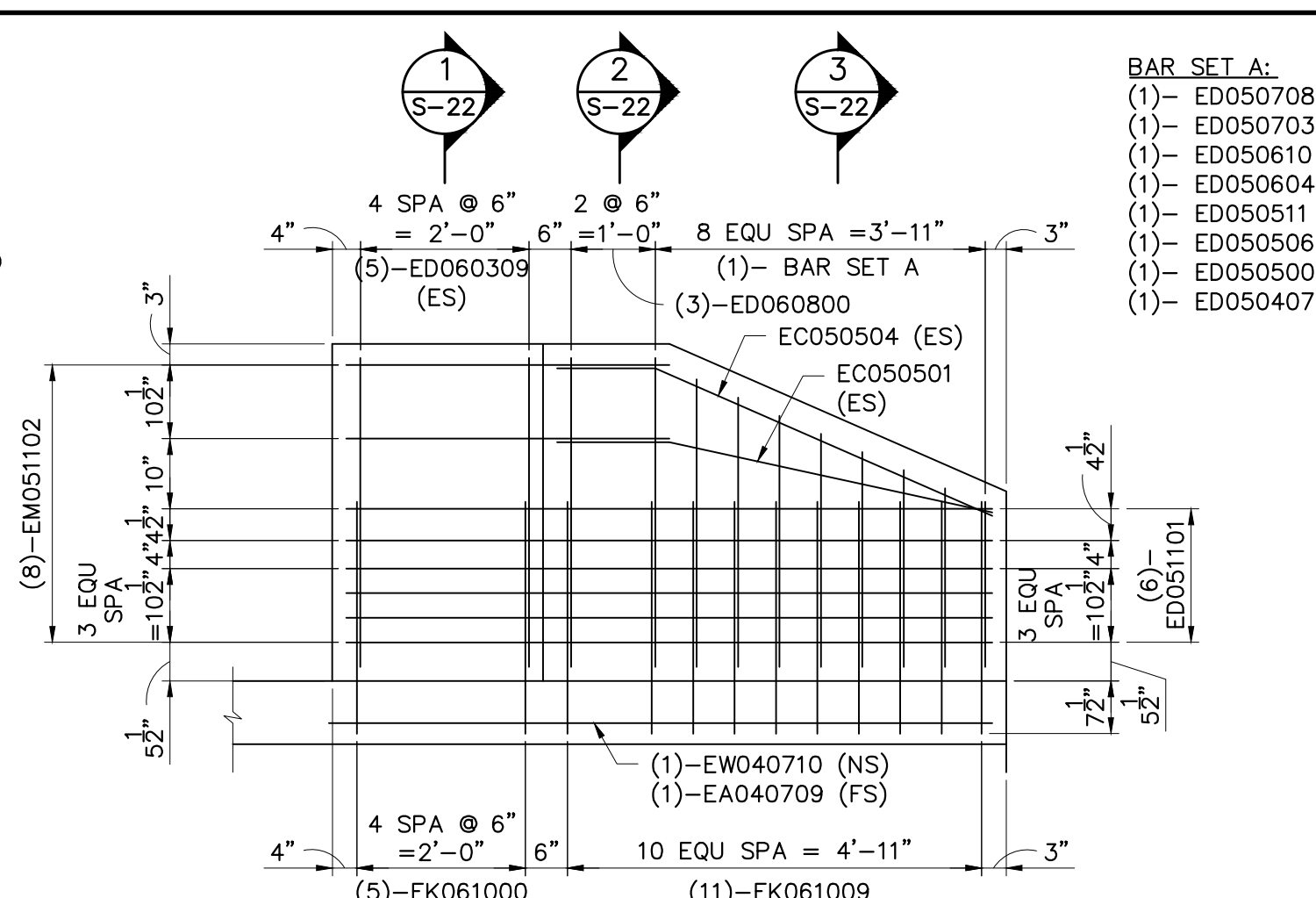
SUPPORT WALL ELEVATION - POUR FW1
SCALE: 1/4" = 1'-0"



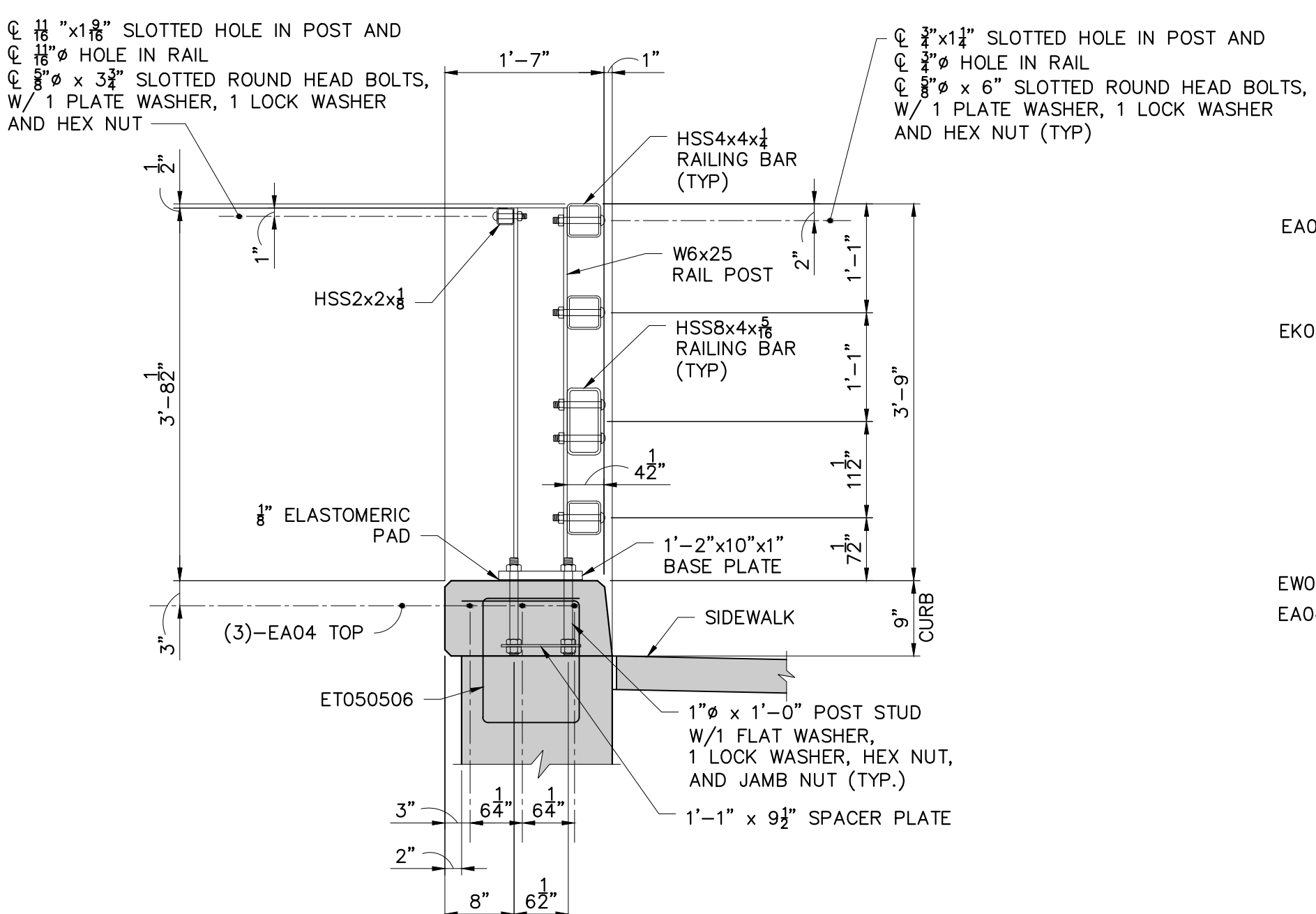
SUPPORT WALL ELEVATION - POUR FW2
SCALE: 1/4" = 1'-0"



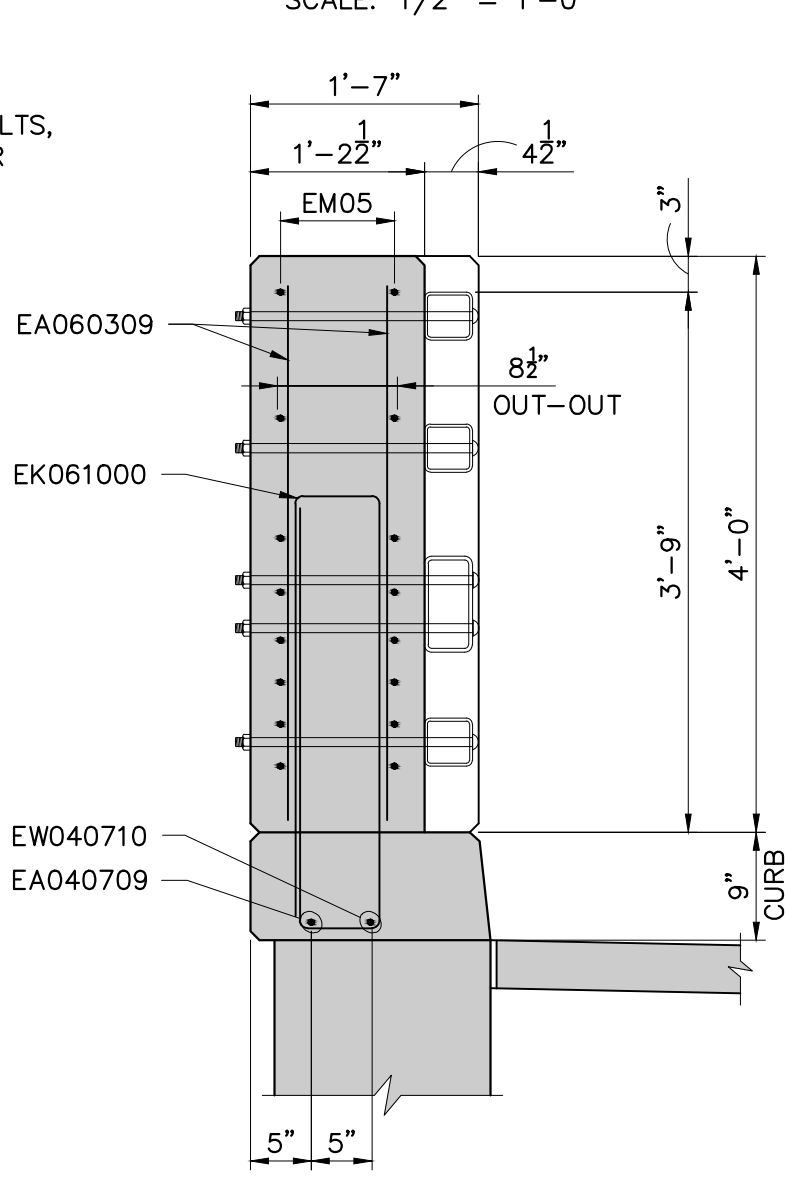
END WALL ELEVATION
SCALE: 1/2" = 1'-0"



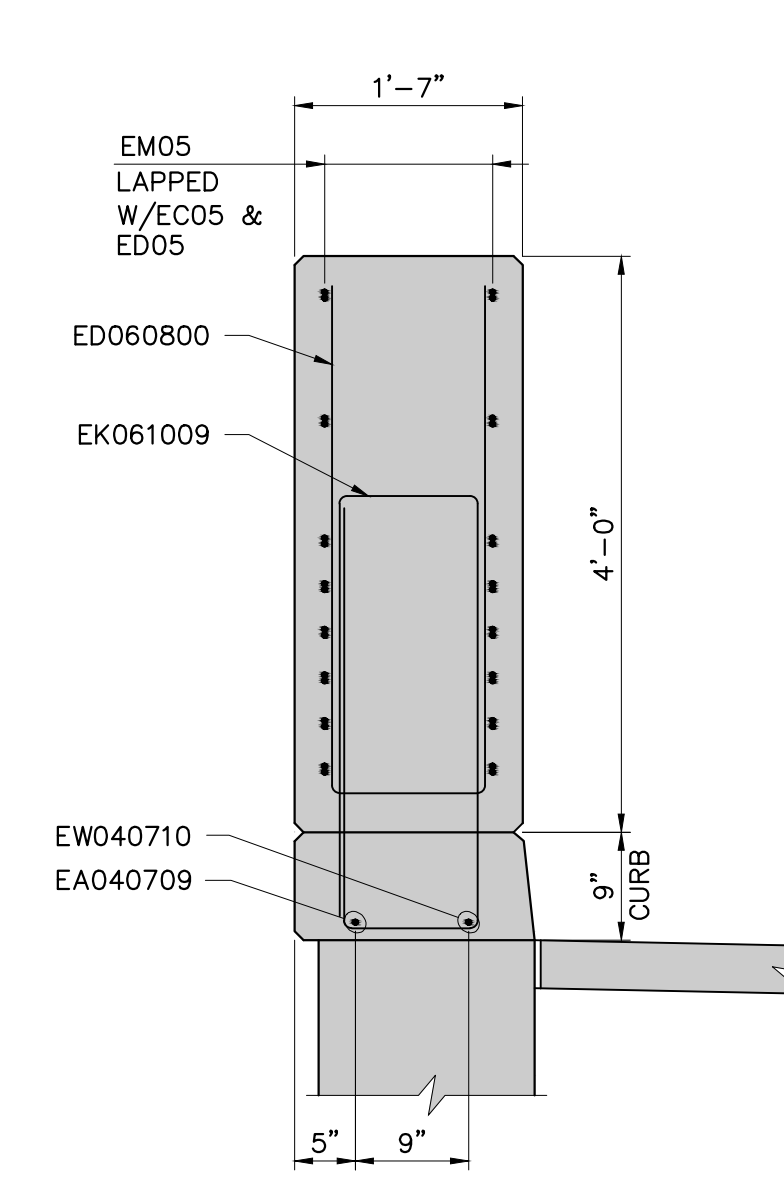
END WALL ELEVATION
SCALE: 1/2" = 1'-0"



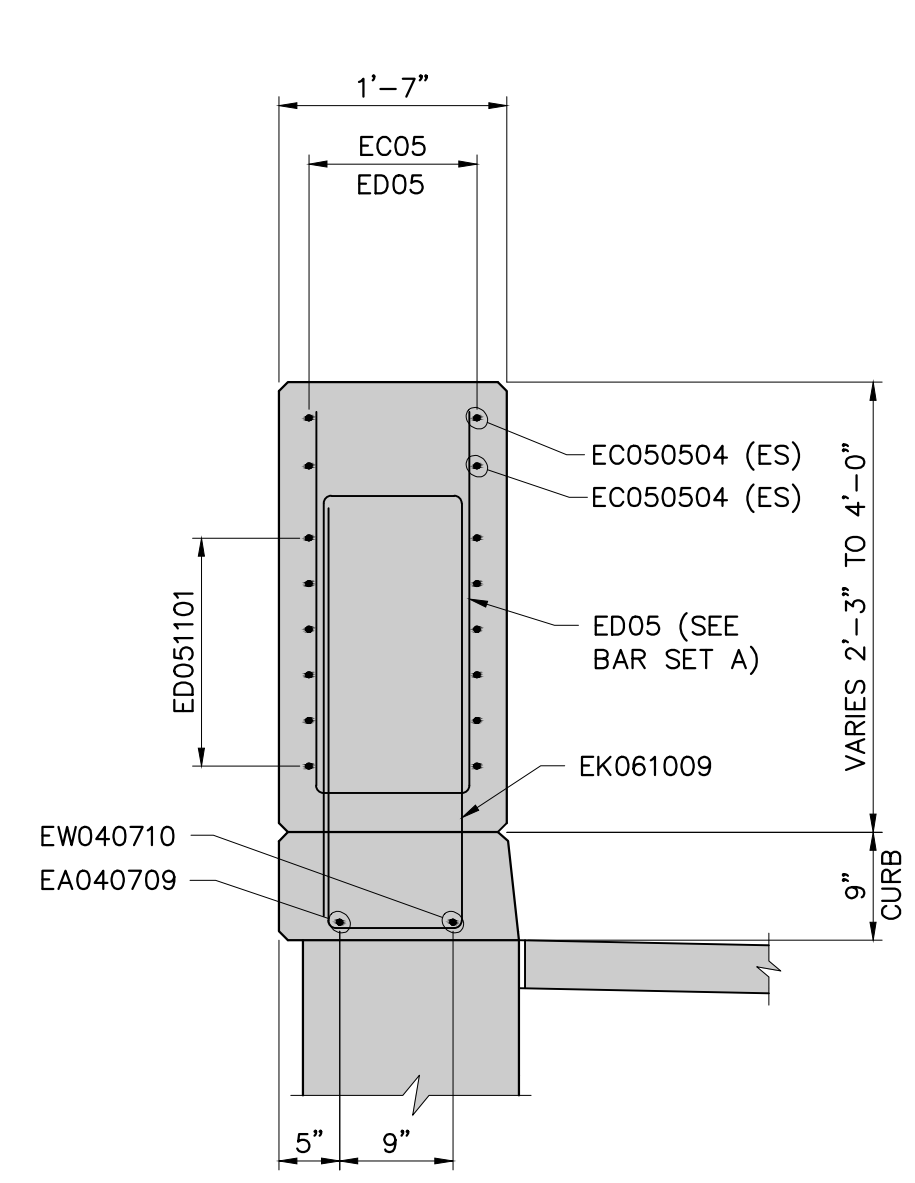
BICYCLE RAILING DETAIL
SCALE: 3/4" = 1'-0"



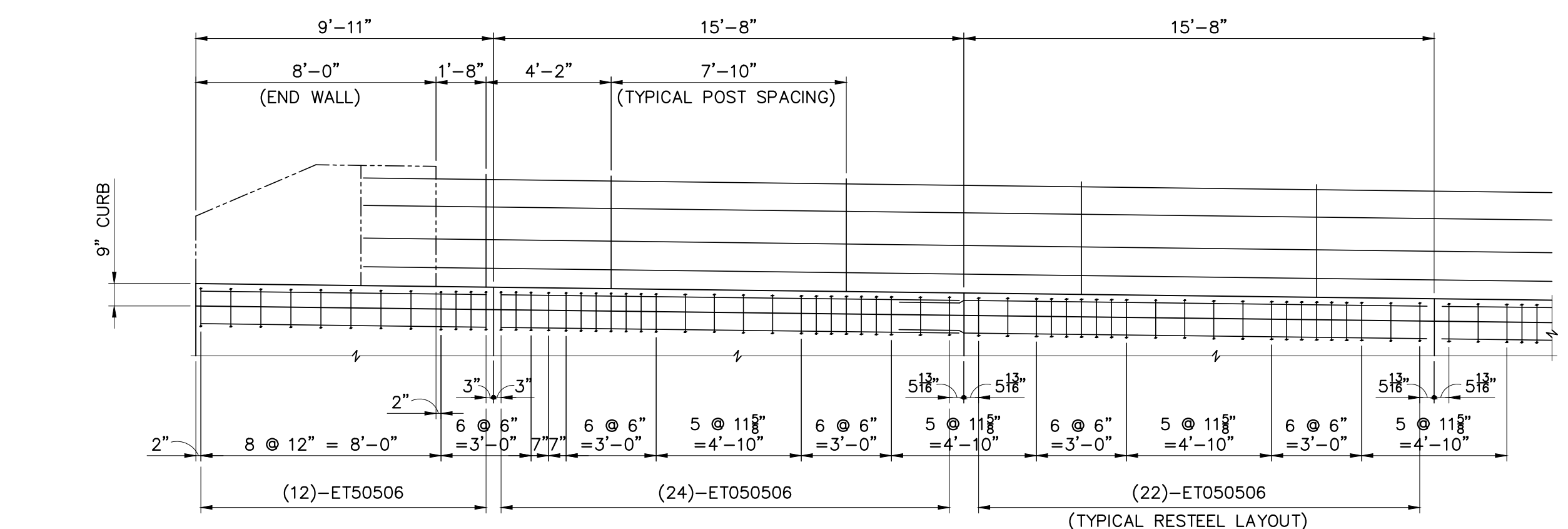
SECTION 1
SCALE: 3/4" = 1'-0"



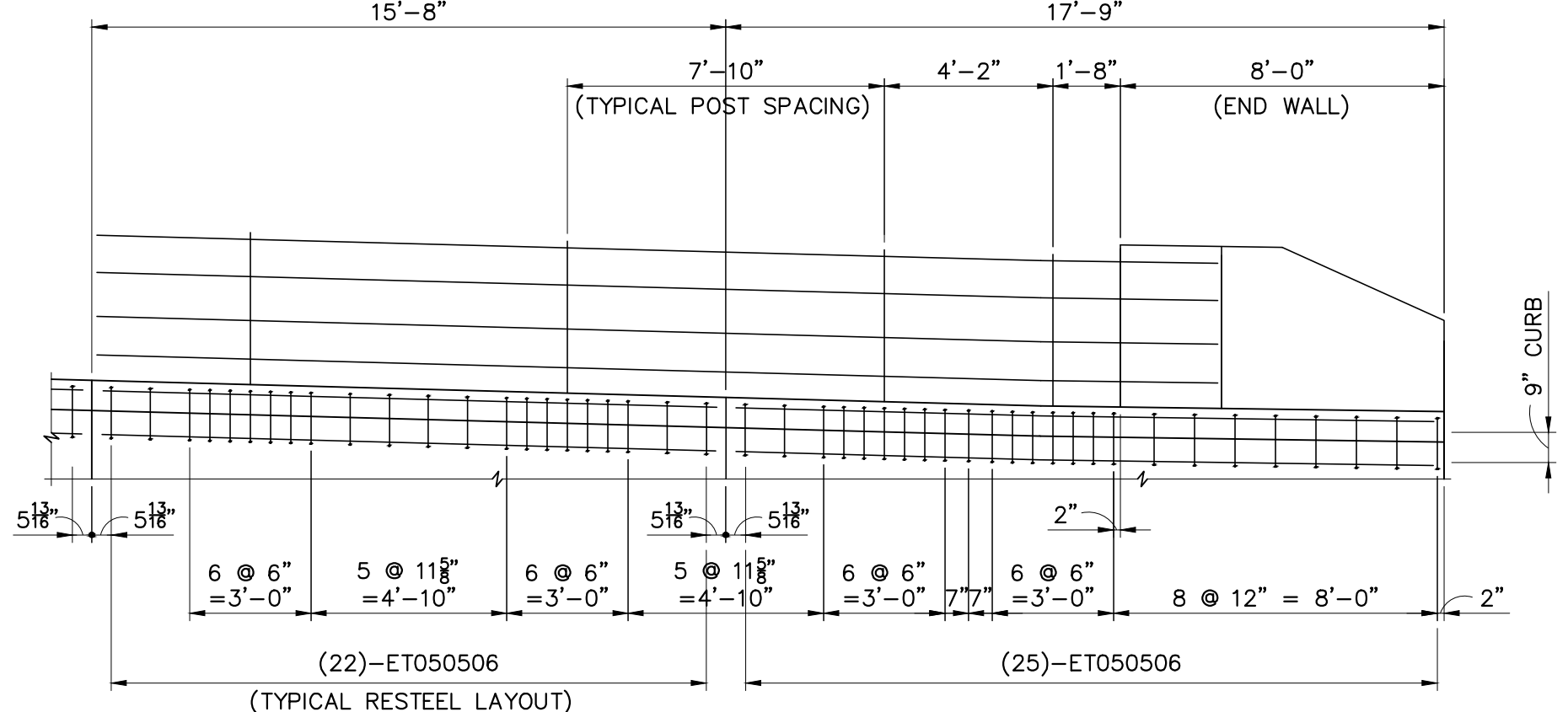
SECTION 2
SCALE: 3/4" = 1'-0"



SECTION 3
SCALE: 3/4" = 1'-0"




(LOOKING NORTH)
WEST CURB ELEVATION
SCALE: 1/4" = 1'-0"




(LOOKING NORTH)
EAST CURB ELEVATION
SCALE: 1/4" = 1'-0"

MISCELLANEOUS QUANTITIES		
ITEM	UNIT	AMOUNT
Excavation, Fdn	CYD	5,620
Earth Retention System, Temp, Left in Place	SFT	940
Backfill, Structure, CIP	CYD	6,840
Aggregate, 21AA Modified	CYD	400
Underdrain, Fdn, 4 inch	FT	905
Underdrain, Outlet, 4 inch	FT	360
Underdrain, Outlet Ending, 4 inch	EA	18
Substructure, Conc	CYD	1,187
Reinforcement, Steel Epoxy Coated	LB	169,124
Bridge Railing, 4 Tube	FT	905



Know what's below.
Call before you dig.

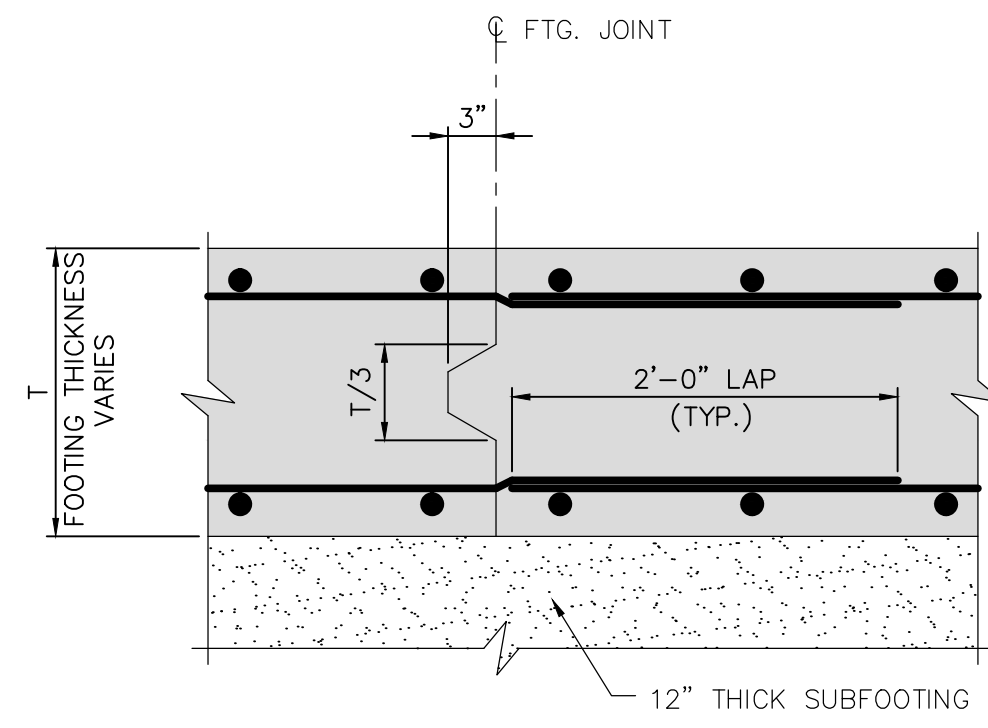
ISSUED FOR BIDS	FINAL PLAN SUBMITTAL	FINAL REVIEW SUBMITTAL	PRELIMINARY PLAN SUBMITTAL	DESCRIPTION	DATE	CHECKED
					APR. 22, 2015	KRK
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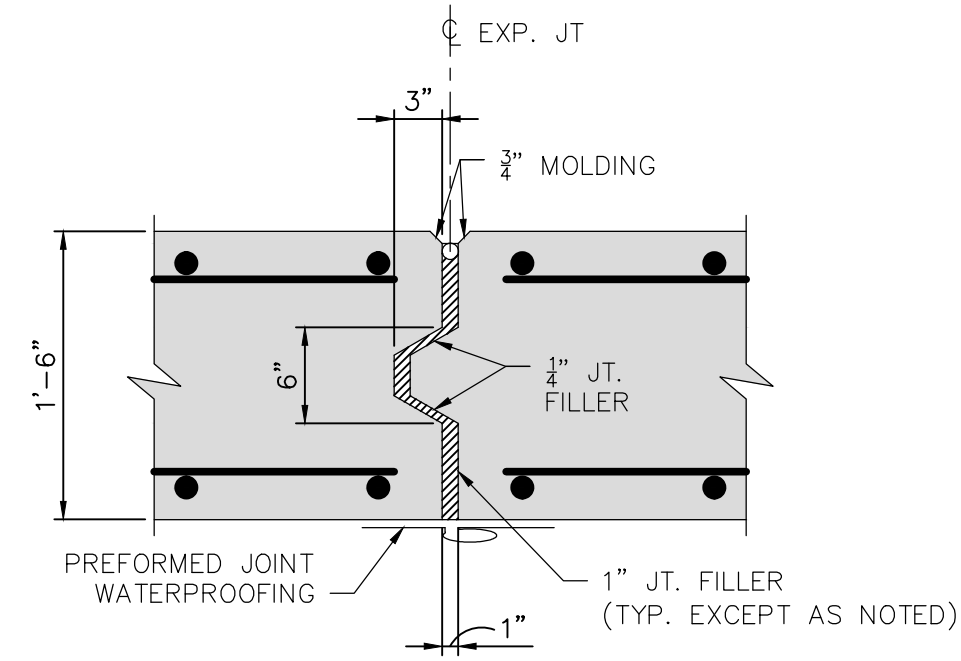
PROJECT MANAGEMENT – PUBLIC SERVICES – CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
BICYCLE RAILING DETAILS

SCALE AS NOTED
SHEET No. **S-25** 182 OF 187



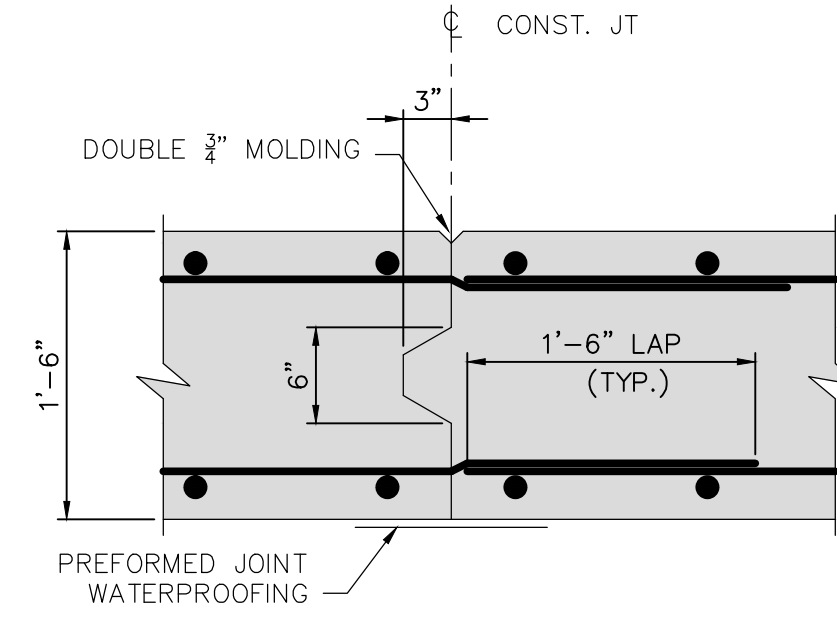
**FOOTING CONSTRUCTION JOINT
DETAIL**

SCALE: 1" = 1'-0"



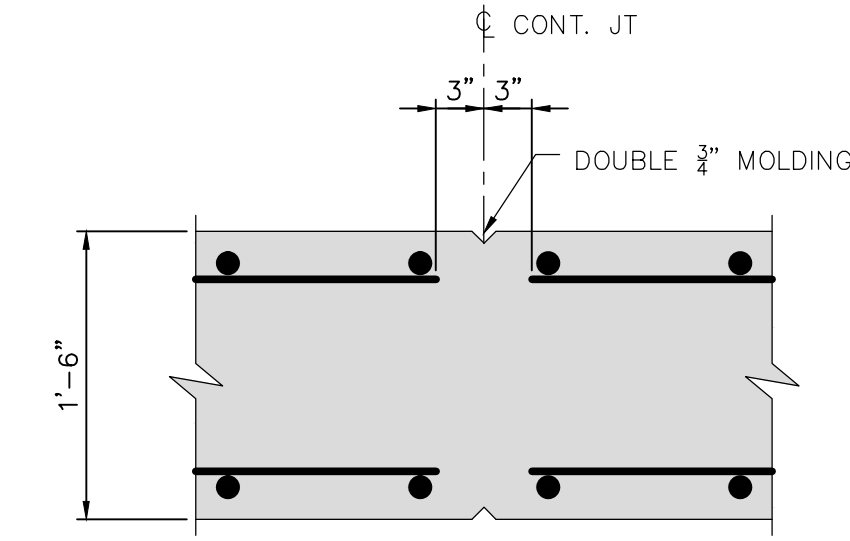
**WALL 1" EXPANSION JOINT
DETAIL**

SCALE: 1" = 1'-0"



**WALL CONSTRUCTION JOINT
DETAIL**

SCALE: 1" = 1'-0"



**WALL CONTRACTION/CONTROL JOINT
DETAIL**

SCALE: 1" = 1'-0"



ISSUED FOR BIDS	APR. 22, 2015	CRK	FES	CHECKED
FINAL PLAN SUBMITTAL	MAR. 26, 2015	CRK	FES	
FINAL REVIEW SUBMITTAL	MAR. 13, 2015	CRK	FES	
PRELIMINARY PLAN SUBMITTAL	JAN. 29, 2015	CRK	FES	
REV.	DATE	DRWN		

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PROJECT MANAGEMENT – PUBLIC SERVICES – CITY OF ANN ARBOR
GEDDES AVENUE IMPROVEMENTS
RETAINING WALL DETAILS

SCALE AS NOTED
DRAWING No.
SHEET No.

LOCATION	PLACEMENT	BAR NUMBER	BAR SIZE	BAR LENGTH	DIMENSIONS								NUMBER REQ'D	TOTAL WEIGHT (LBS)
					a	b	c	d	e	f	g	h		
F01		EA043400	4	34'-0"	34'-0"								38	864
		EA091508	9	15'-8"	15'-8"								82	4368
		EB091205	9	12'-5"	7'-2"	5'-3"							75	3167
		EB091411	9	14'-11"	9'-8"	5'-3"							75	3804
		TOTAL REINFORCEMENT, EPOXY COATED											12203	
F02		EA042204	4	22'-4"	22'-4"								24	359
		EA044200	4	42'-0"	42'-0"								24	674
		EA070908	7	9'-8"	9'-8"								94	1858
		EB070711	7	7'-11"	3'-10"	4'-1"							94	1522
		EB071101	7	11'-1"	7'-0"	4'-1"							94	2130
TOTAL REINFORCEMENT, EPOXY COATED											6543			
F03		EA043302	4	33'-2"	33'-2"								22	488
		EA060808	6	8'-8"	8'-8"								57	742
		EB040310	4	3'-10"	2'-9"	1'-1"							11	29
		EB040508	4	5'-8"	2'-9"	2'-11"							11	42
		EB060705	6	7'-5"	3'-10"	3'-7"							47	524
		EB060911	6	9'-11"	6'-4"	3'-7"							47	701
		ED040403	4	4'-3"	0'-8"	2'-11"	0'-8"						11	32
		EW041101	4	11'-1"	2'-9"	5'-10"	1'-10"		2'-11"	6'-6"			11	82
		TOTAL REINFORCEMENT, EPOXY COATED											2640	
		F04		EA041504	4	15'-4"	15'-4"							
EA060808	6			8'-8"	8'-8"								23	300
EB060705	6			7'-5"	3'-10"	3'-7"							24	268
EB060911	6			9'-11"	6'-4"	3'-7"							24	358
TOTAL REINFORCEMENT, EPOXY COATED											1152			
F05		EA043103	4	31'-3"	31'-3"								20	418
		EA060802	6	8'-2"	8'-2"								58	712
		EB040308	4	3'-8"	2'-9"	0'-11"							10	25
		EB040508	4	5'-8"	2'-9"	2'-11"							10	38
		EB060705	6	7'-5"	3'-10"	3'-7"							48	535
		EB060901	6	9'-1"	5'-6"	3'-7"							48	655
		ED040403	4	4'-3"	0'-8"	2'-11"	0'-8"						10	29
		EW041101	4	11'-1"	2'-9"	5'-10"	1'-10"		2'-11"	6'-6"			10	75
		TOTAL REINFORCEMENT, EPOXY COATED											2487	
		F06		EA044104	4	41'-4"	41'-4"							
EA050700	5			7'-0"	7'-0"								60	439
EB040308	4			3'-8"	2'-9"	0'-11"							9	23
EB040508	4			5'-8"	2'-9"	2'-11"							9	35
EB050607	5			6'-7"	3'-6"	3'-1"							50	344
EB060709	5			7'-9"	4'-8"	3'-1"							50	405
ED040403	4			4'-3"	0'-8"	2'-11"	0'-8"						9	26
EW041101	4			11'-1"	2'-9"	5'-10"	1'-10"		2'-11"	6'-6"			9	67
TOTAL REINFORCEMENT, EPOXY COATED											1836			
F07				EA042710	4	27'-10"	27'-10"							
		EA044200	4	42'-0"	42'-0"								26	730
		EA071002	7	10'-2"	10'-2"								188	3907
		EB070803	7	8'-3"	4'-2"	4'-1"							189	3188
		EB071103	7	11'-3"	7'-2"	4'-1"							189	4347
TOTAL REINFORCEMENT, EPOXY COATED											13139			

LOCATION	PLACEMENT	BAR NUMBER	BAR SIZE	BAR LENGTH	DIMENSIONS								NUMBER REQ'D	TOTAL WEIGHT (LBS)
					a	b	c	d	e	f	g	h		
F08		EA042710	4	27'-10"	27'-10"								48	893
		EA044200	4	42'-0"	42'-0"								24	674
		CA070908	7	9'-8"	9'-8"								151	2984
		EB040310	4	3'-10"	2'-11"	0'-11"							12	31
		EB040510	4	5'-10"	3'-1"	2'-11"							12	47
		EB070711	7	7'-11"	3'-10"	4'-1"							141	2282
		EB071101	7	11'-1"	7'-0"	4'-1"							141	3195
		ED040405	4	4'-5"	0'-8"	3'-1"	0'-8"						12	36
		EW041106	4	11'-6"	2'-9"	6'-2"	1'-10"		3'-1"	6'-11"			12	93
		TOTAL REINFORCEMENT, EPOXY COATED											10235	
F09		EA044606	4	46'-6"	46'-6"								22	684
		EA060808	6	8'-8"	8'-8"								80	1042
		EB040310	4	3'-10"	2'-11"	0'-11"							11	29
		EB040508	4	5'-8"	2'-9"	2'-11"							11	42
		EB060705	6	7'-5"	3'-10"	3'-7"							71	791
		EB060911	6	9'-11"	6'-4"	3'-7"							71	1058
		ED040403	4	4'-3"	0'-8"	2'-11"	0'-8"						11	32
		EW041101	4	11'-1"	2'-9"	5'-10"	1'-10"		2'-11"	6'-6"			11	82
		TOTAL REINFORCEMENT, EPOXY COATED											3760	
		F10		EA043100	4	31'-0"	31'-0"							
EA060802	6			8'-2"	8'-2"								57	700
EB040308	4			3'-8"	2'-9"	0'-11"							10	25
EB040508	4			5'-8"	2'-9"	2'-11"							10	38
EB060705	6			7'-5"	3'-10"	3'-7"							48	535
EB060901	6			9'-1"	5'-6"	3'-7"							48	655
ED040403	4			4'-3"	0'-8"	2'-11"	0'-8"						10	29
EW041101	4			11'-1"	2'-9"	5'-10"	1'-10"		2'-11"	6'-6"			10	75
TOTAL REINFORCEMENT, EPOXY COATED											2472			
F11				EA041706	4	17'-6"	17'-6"							
		EA060802	6	8'-2"	8'-2"								34	418
		EB040308	4	3'-8"	2'-9"	0'-11"							10	25
		EB040508	4	5'-8"	2'-9"	2'-11"							10	38
		EB060705	6	7'-5"	3'-10"	3'-7"							24	268
		EB060901	6	9'-1"	5'-6"	3'-7"							24	328
		ED040403	4	4'-3"	0'-8"	2'-11"	0'-8"						10	29
		EW041101	4	11'-1"	2'-9"	5'-10"	1'-10"		2'-11"	6'-6"			10	75
		TOTAL REINFORCEMENT, EPOXY COATED											1385	
		F12		EA041504	4	15'-4"	15'-4"							
EA060802	6			8'-2"	8'-2"								24	295
EB060705	6			7'-5"	3'-10"	3'-7"							24	268
EB060901	6			9'-1"	5'-6"	3'-7"							24	328
TOTAL REINFORCEMENT, EPOXY COATED											1096			

LOCATION	PLACEMENT	BAR NUMBER	BAR SIZE	BAR LENGTH	DIMENSIONS								NUMBER REQ'D	TOTAL WEIGHT (LBS)
					a	b	c	d	e	f	g	h		
F13		EA044000	4	40'-0"	40'-0"								18	481
		EA044202	4	42'-2"	42'-2"								18	508
		EA050700	5	7'-0"	7'-0"								105	767
		EB040308	4	3'-8"	2'-9"	0'-11"							9	23
		EB040508	4	5'-8"	2'-9"	2'-11"							9	35
		EB050607	5	6'-7"	3'-6"	3'-1"							96	660
		EB050709	5	7'-9"	4'-8"	3'-1"							96	776
		ED040403	4	4'-3"	0'-8"	2'-11"	0'-8"						9	26
		EW041101	4	11'-1"	2'-9"	5'-10"	1'-10"		2'-11"	6'-6"			9	67
		TOTAL REINFORCEMENT, EPOXY COATED											3343	
F14		EA042811	4	28'-11"	28'-11"								36	696
		EA044200	4	42'-0"	42'-0"								18	506
		EA050700	5	7'-0"	7'-0"								113	826
		EB050607	5	6'-7"	3'-6"	3'-1"							114	783
EB050709	5	7'-9"	4'-8"	3'-1"							114	922		
TOTAL REINFORCEMENT, EPOXY COATED											3733			
F15		EA042811	4	28'-11"	28'-11"								36	696
		EA044200	4	42'-0"	42'-0"								18	506
		EA050700	5	7'-0"	7'-0"								113	826
		EB050607	5	6'-7"	3'-6"	3'-1"							114	783
EB050709	5	7'-9"	4'-8"	3'-1"							114	922		
TOTAL REINFORCEMENT, EPOXY COATED											3733			
F16		EA042811	4	28'-11"	28'-11"								36	696
		EA044200	4	42'-0"	42'-0"								18	506
		EA050700	5	7'-0"	7'-0"								113	826
		EB050607	5	6'-7"	3'-6"	3'-1"							114	783
EB050709	5	7'-9"	4'-8"	3'-1"							114	912		
TOTAL REINFORCEMENT, EPOXY COATED											3723			
F17		EA043301	4	33'-1"	33'-1"								18	398
		EA050700	5	7'-0"	7'-0"								40	293

PAY ITEM #	DESCRIPTION	QUANTITY	UNIT
130	Protective Fence, Orange, Plastic, 4 Foot Ht.	9000	Ft
135	Tree Removal, 8" and larger	126	Ea
135A	Excavation for Tree Evaluation	5200	Ft
140	Exploratory Excavation, Trench Detail I (0-10' deep)	6	Ea
141	Exploratory Excavation, Trench Detail VI (0-10' deep)	4	Ea
144	Exploratory Excavation Add'l Depth	20	VF
201	Project Supervision, Max. \$100,000	1	LS
202	General Conditions, Max. \$100,000	1	LS
203	Minor Traf Devices, Max. \$100,000	1	LS
204	Preconstruction Documentation	1	LS
205	Railroad Flagger Allowance	48000	Dlr
206	Machine Grading, Modified	51	Sta
207	Subgrade Undercutting, Type II	2975	Cyd
208	Pavt Mrkg, Sprayable, Thermopl, 6 inch, White	6635	Ft
209	Pavt Mrkg, Sprayable, Thermopl, 4 inch, Yellow	8766	Ft
210	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	300	Ft
211	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	128	Ft
212	Pavt Mrkg, Thermopl, 24 inch Stop Bar	120	Ft
213	Guardrail, Type B	438	Ft
214	Guardrail Approach Terminal, Type 1B	1	Ea
215	Guardrail Approach Terminal, Type 2B	1	Ea
216	Conduit, Schedule 80 PVC, 2-3 inch, Special	4406	Ft
217	Communication Handhole Assembly, Complete	11	Ea
218	HMA, 5E1	1308	Ton
219	HMA, 4E1	3682	Ton
220	HMA Driveway Approach	90	Ton
221	HMA, LVSP	35	Ton
222	HMA Plane of Weakness Joint	383	Ft
223	Temporary HMA Pavement	1000	Ton
224	Maintenance Aggregate	2000	Ton
225	Decorative Stone Wall Removal	1	LS
226	Fence, Rem	377	Ft
227	Guardrail, Rem	489	Ft
228	HMA Surface, Rem	16474	Syd
229	Cold Milling HMA Surface	698	Syd
230	Remove Concrete Curb or Curb & Gutter - Any Type	851	Ft
231	Remove Concrete Sidewalk and Drive - Any Thickness	2193	Sft
232	Concrete Curb or Curb & Gutter - Any Type	5333	Ft
233	Concrete M-Opening - High Early	766	Ft
234	4 inch Concrete Sidewalk	18431	Sft
235	6 inch Concrete Sidewalk, Ramp or Drive	2027	Sft
235A	6 inch Concrete Sidewalk, Ramp or Drive - High Early	6473	Sft
236	Detectable Warning, Cast In Place	160	Sft
237	Adjust Structure Cover	8	Ea
238	Adjust Curb Inlet Structure Cover	4	Ea
239	Adjust Monument Box or Gate Valve Box or Gas Box	15	Ea
240	Structure Cover	68	Ea
241	Culv, Rem, 24 inch to 48 inch	1	Ea
242	Sewer, Rem - Any Size	124	Ft
243	Dr Structure, Rem	5	Ea
244	Modular Concrete Block Wall	1476	Sft
245	Natural Boulder Retaining Wall	2816	Sft
246	Subbase, CIP, Granular Material, CI II	1352	Cyd
247	Sand Subbase Course, Class II - C.I.P.	5498	Cyd
248	Aggregate Base Course, 21AA Limestone, 4 inch, C.I.P.	23	Syd
249	Aggregate Base Course, 21AA Limestone, 6 inch, C.I.P.	436	Syd
250	Aggregate Base Course, 21AA Limestone, 8 inch, C.I.P.	16532	Syd
251	Aggregate Surface Cse, 8 inch	1203	Syd
252	Wood Privacy Fence	99	Ft
253	Wood Picket Fence	165	Ft
254	Plastic Drum - Lighted - Furnish and Operate	300	Ea
255	Barricade, Type III - Lighted - Furnish and Operate	50	Ea
256	Temporary Sign, Type B	345	Sft
257	Temporary Sign, Type B, Special	633	Sft
258	Channelizing Device, 42 inch, Furnish and Operate	100	Ea

PAY ITEM #	DESCRIPTION	QUANTITY	UNIT
259	Sign, Portable, Changeable Message, Furn	2	Ea
260	Sign, Portable, Changeable Message, Oper	2	Ea
261	Mast Arm, Rem	1	Ea
262	Mast Arm Std, Rem	1	Ea
263	Fdn, Rem	1	Ea
264	Pedestal, Rem	4	Ea
265	Pedestal Fdn, Rem	4	Ea
266	Case Sign, Rem	1	Ea
267	Sign, Type III, Rem	107	Ea
268	Mast Arm Pole, Cat III, Mod	2	Ea
269	Mast Arm, 20 foot, Cat III, Mod	2	Ea
270	Mast Arm Pole, Fdn	2	Ea
271	Pedestal, Fdn	2	Ea
272	Pedestal, Alum, Salv	2	Ea
273	Conduit, DB, 2, 3 inch	80	Ft
274	Riprap	20	Syd
275	Underdrain, Subbase, 6 inch, Special	8206	Ft
276	Culvert, CI IV RCP, 24 inch	30	Ft
277	End Section, 54 inch	1	Ea
278	End Section, 24 inch	2	Ea
278A	End Section, 30 inch	1	Ea
282	30 inch Slip-Lining Pipe	74	Ft
283	CIP Conc Manhole Base	1	Ea
284	Hydrodynamic Separator	1	Ea
285	Outlet Control Structure	1	Ea
286	Energy Dissipation Structure	1	Ea
287	Single Inlet	18	Ea
288	8 inch Schedule 80 PVC Pipe, Trench Detail I	56	LF
290	Drainage Aggregate, Type I	146	Ton
291	Drainage Aggregate, Type II	8	Ton
292	Geotextile Blanket	1,470	Syd
293	Geotextile Separator	14,237	Syd
294	8 inch HDPE Dual Wall, Perforated Infiltration Pipe	547	Lft
295	12 inch HDPE Dual Wall, Perforated Infiltration Pipe	1,002	Lft
296	24 inch Dia Maintenance Basin	16	Ea
297	8 inch Sewer Tap	4	Ea
298	Temp. Water Stop, 16 inch and Larger	7	Ea
299	Temp. Water Stop, 12 inch and Smaller	2	Ea
305	8 inch SDR 26 PVC Pipe, Trench Detail II Mod	3,274	LF
320	12 inch C-76 CI IV RCP, Trench Detail I	1,824	Ft
321	15 inch C-76 CI IV RCP, Trench Detail I	95	Ft
322	18 inch C-76 CI IV RCP, Trench Detail I	89	Ft
323	24 inch C-76 CI IV RCP, Trench Detail I	570	Ft
324	36 inch C-76 CI IV RCP, Trench Detail I	694	Ft
335	8 inch by 6 inch SDR 26 PVC Tee (or Wye)	23	Ea
350	6 inch SDR 23.5 PVC Riser	153	VF
353	6 inch SDR 23.5 PVC Service Lead	805	LF
356-SP	Sewer, MH, 48 inch dia, (0-10 ft deep)	17	Ea
357-SP	Sewer MH, 48 inch dia Add'l Depth	108	VF
358-SP	Sewer MH, 60 inch dia, (0-10 ft deep)	2	Ea
359-SP	Sewer, MH, 60 inch dia, Add'l Depth	33	VF
360	Type I Manhole (0-10' deep)	34	Ea
361	Manhole Additional Depth	34	Ft
364	Type III Manhole	2	Ea
370	8 inch Drop Connection	38	VF
381-SP	Earth Retention for Sanitary Sewer Construction	1	LS
392	Pipe Undercut & Refill (6A)	540	CY
400	20 inch, PC350 DIP w/ Polyethylene Wrap, Trench Detail I	912	LF
401	16 inch, PC350 DIP w/ Polyethylene Wrap, Trench Detail I	15	LF
402	8 inch, Class 50 DIP w/ Polyethylene Wrap, Trench Detail I	328	LF
403	6 inch, Class 50 DIP w/ Polyethylene Wrap, Trench Detail I	63	LF
404	20 inch, Water Main Cap	2	Ea
405	16 inch, Water Main Cap	1	Ea
406	8 inch, Water Main Cap	4	Ea

PAY ITEM #	DESCRIPTION	QUANTITY	UNIT
407	6 inch, Water Main Cap	2	Ea
410	20 inch, 11.25° Bend	3	Ea
411	20 inch, 22.5° Bend	2	Ea
412	16 inch, 45° Bend	1	Ea
413	8 inch, 11.25° Bend	2	Ea
414	8 inch, 22.5° Bend	3	Ea
415	8 inch, 90° Bend	1	Ea
416	6 inch, 90° Bend	1	Ea
420	8 inch x 6 inch Reducer	2	Ea
430	20 inch by 16 inch Tee	1	Ea
431	20 inch by 8 inch Tee	1	Ea
432	20 inch by 6 inch Tee	1	Ea
433	16 inch by 8 inch Tee	2	Ea
434	8 inch by 6 inch Tee	2	Ea
440	Fire Hydrant Assembly	5	Ea
443	8 inch Gate Valve-in-Well	1	Ea
444	16 inch Gate Valve-in-Box	1	Ea
446	20 inch Butterfly Valve-in-Well	1	Ea
447	16 inch Gate Valve-in-Well	1	Ea
450	16 inch by 6 inch Tapping Sleeve Valve-in-Box	1	Ea
451	16 inch by 8 inch Tapping Sleeve Valve-in-Well	4	Ea
460	Excavate & Backfill for Water Service Tap and Lead	86	LF
461	Water Service Lead, 1 inch	86	LF
481	Water Main Pipe Abandonment	1,413	LF
482	6 inch Gate Valve-in-Box Abandonment	1	Ea
483	16 inch Butterfly Valve-in-Well Abandonment	1	Ea
490	1 inch Air-Relief Assembly	1	Ea
583	Temporary Pavement Marking, 4 inch White or Yellow, Type NR	3,600	Ft
590	Pavt Mrkg, Ovlv Cold Plastic, Thru Arrow Sym	9	Ea
591	Pavt Mrkg, Ovlv Cold Plastic, Bike	9	Ea
702	Inlet Filter	45	Ea
800	Silt Fence	10,271	Ft
881	Turf Establishment	18,178	Syd
881A	Landscaping Maintenance and Warranty, 1st Year	1	LS
881B	Landscaping Maintenance and Warranty, 2nd Year	1	LS
900	Excavation, Fdn	5,620	Cyd
901	Earth Retention System, Temp, Left in Place	940	Sft
902	Backfill, Structure, CIP	6,840	Cyd
903	Aggregate, 21A, Modified	400	Cyd
904	Underdrain, Fdn, 4 inch	905	Ft
905	Underdrain Outlet, 4 inch	360	Ft
906	Underdrain Outlet Ending, 4 inch	18	Ea
907	Substructure, Conc	1,187	Cyd
908	Reinforcement, Steel, Epoxy Coated	169,124	Lb
909	Bridge Railing, 4 Tube	905	Ft
910	Sprinkler Head, Relocate	50	Ea
911	Sprinkler Head, Replace	150	Ea
912	Sprinkler Line	3,000	Ft
913	Aluminum Rail Fence, Direct Bury	280	Ft
914	Landscape Stone	164	Syd
915	Underdrain Outlet, 6 inch	30	Ft
916	Post Mailbox, Modified	30	Ea
917	Gleditsia T.I. Imperial, 2.5 inch cal.	11	Ea
918	Nyssa Sylvatica, 2.5 inch	9	Ea
919	Ostrya Virginiana, 2 inch	6	Ea
920	Parthenocissus Tricuspidata, #1 container	72	Ea
921	Picea Glauca, 10 ft ht.	25	Ea
922	Pinus Rubra, 10 ft ht.	10	Ea
923	Quercus Bicolor, 2.5 inch	16	Ea
924	Quercus Rubra, 2.5 inch	17	Ea
925	Fire Hydrant Assembly, Rem	1	Ea
926	Fire Hydrant Adjustment	3	Ea
927	Fire Hydrant Relocate	2	Ea
928	Temporary Turf Establishment	5,300	Syd



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APR. 22, 2015
MAR. 26, 2015
MAR. 13, 2015
JAN. 29, 2015

ISSUED FOR BIDS
FINAL PLAN SUBMITTAL
FINAL REVIEW SUBMITTAL
PRELIMINARY PLAN SUBMITTAL

DATE
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REV. DESCRIPTION

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GEDDES AVENUE IMPROVEMENTS
QUANTITY SUMMARY SHEET