

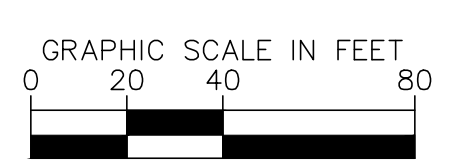
SEEDING LEGEND	
	PERMANENT SEEDING AMERITURE FRONTRUNNER BLEND TALL FESCUE; APPLY AT A RATE OF 350 LBS/ACRE (8LBS/1000 SQFT)

MULCHING LEGEND	
	MULCH HARDWOOD SHREDDED MULCH, NATURAL BROWN COLOR

**PLANT SCHEDULE**

CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	HT
<b>DECIDUOUS TREES</b>						
AR	72	ACER SACCHARUM	SUGAR MAPLE	B & B	2' CAL MIN	---
BR	7	BETULA NIGRA	RIVER BIRCH	B & B	2' CAL MIN	---
CE	16	CERCIS CANADENSIS	EASTERN REDBUD MULTI-TRUNK	B & B	2' CAL MIN	---
CF	17	CORNUS FLORIDA	FLOWERING DOGWOOD	B & B	2' CAL MIN	---
CG	69	CARYA GLABRA	PINKT HICKORY	B & B	2' CAL MIN	---
CL	42	CARYA LACINIOSA	SHELLBARK HICKORY	B & B	2' CAL MIN	---
CP	42	CRATAEGUS PHAENOPYRUM	WASHINGTON HAWTHORN	B & B	2' CAL MIN	---
GD	11	GYMNOCLADUS DIOICUS 'ESPRESSO'	KENTUCKY COFFEETREE	B & B	2' CAL MIN	---
JA	66	JUGLANS NIGRA	EASTERN BLACK WALNUT	B & B	2' CAL MIN	---
NS	7	NYSSA SILVATICA	TUPELO	B & B	2' CAL MIN	---
QR	73	QUERCUS RUBRA	NORTHERN RED OAK	B & B	2' CAL MIN	---
<b>EVERGREEN TREES</b>						
PR	45	PINUS RESINOSA	RED PINE	B & B	---	6' HT MIN
TD	10	TAXODIUM DISTICHUM	BALD CYPRESS	B & B	---	6' HT MIN
TO	41	THUJA OCCIDENTALIS	AMERICAN ARBORVITAE	B & B	---	6' HT MIN
<b>DECIDUOUS SHRUBS</b>						
AP	41	ARONIA MELANOCAPA	---	---	SEE PLAN	24" HT MIN

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Elizabeth Van Sledright

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SCALE: AS NOTED  
 DRWN.: VG  
 CHKD.: AMM  
 APPD.:  
 APPD.:  
 DATE : 10/10/24

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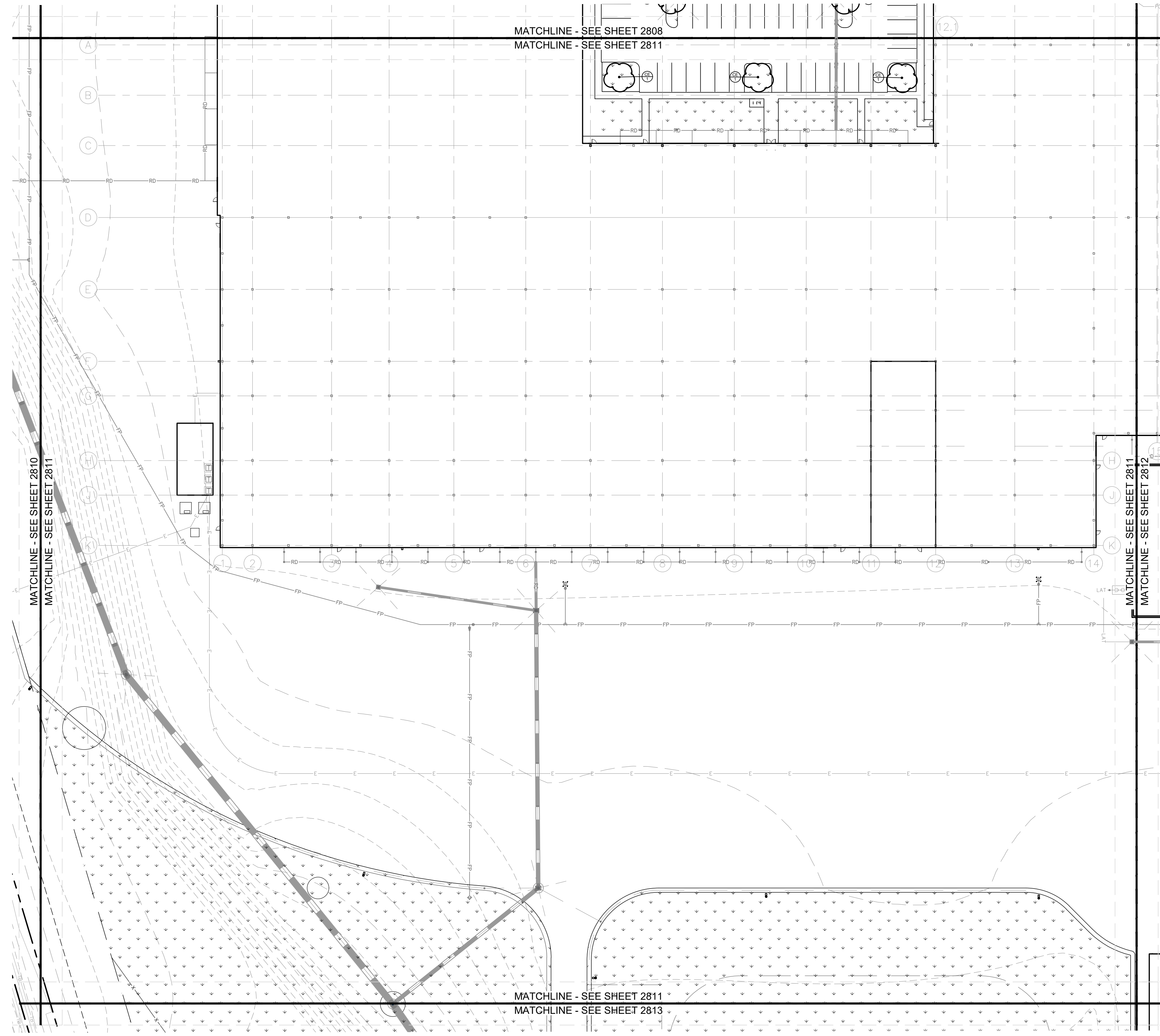
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 KHA PROJECT # 170509000

MALARKEY,IND FRANKLIN,IN

PROJ. NO. 170509000  
 DWG. NO. 2810  
 SHEET 0  
 REV 0

PHASE 2 - FINAL BUILDOUT  
 LANDSCAPE PLAN



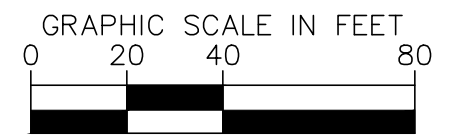
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AP	41	ARONIA MELANOCAPA	---	---	SEE PLAN	24' HT MIN

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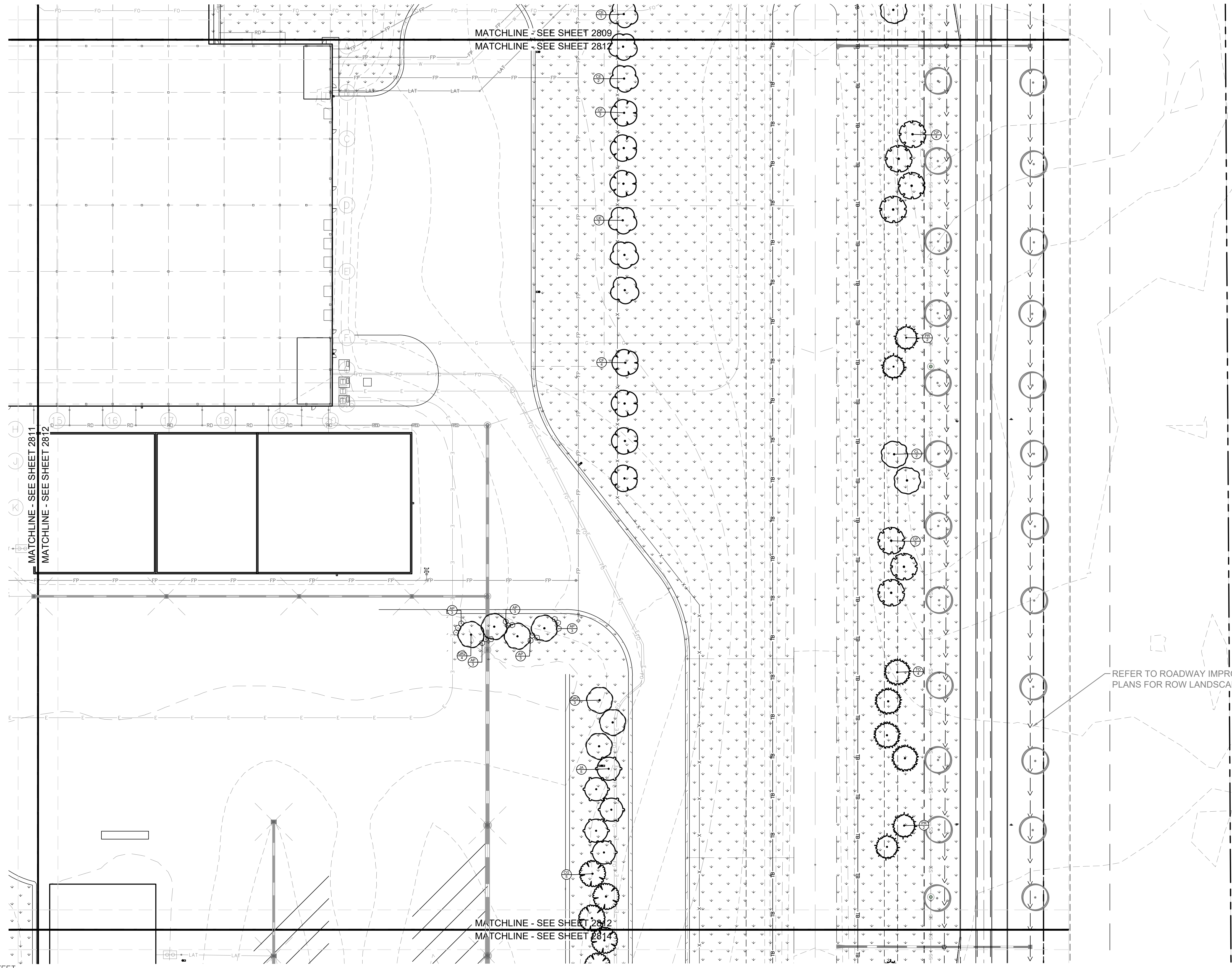
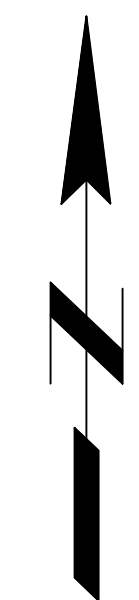
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MALARKEY,IND FRANKLIN,IN

PROJ. NO. 170509000  
 DWG. NO. 2811  
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TITLE - PHASE 2 - FINAL BUILDOUT LANDSCAPE PLAN

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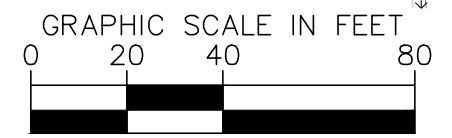
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TD	10	TAXODIUM DISTICHUM	BALD CYPRESS	B & B	---	6' HT MIN
TO	41	THUJA OCCIDENTALIS	AMERICAN ARBORVITAE	B & B	---	6' HT MIN
CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	SIZE
<b>DECIDUOUS SHRUBS</b>						
AP	41	ARONIA MELANOCAPA	---	---	SEE PLAN	24" HT MIN

REFER TO ROADWAY IMPROVEMENT  
PLANS FOR ROW LANDSCAPE



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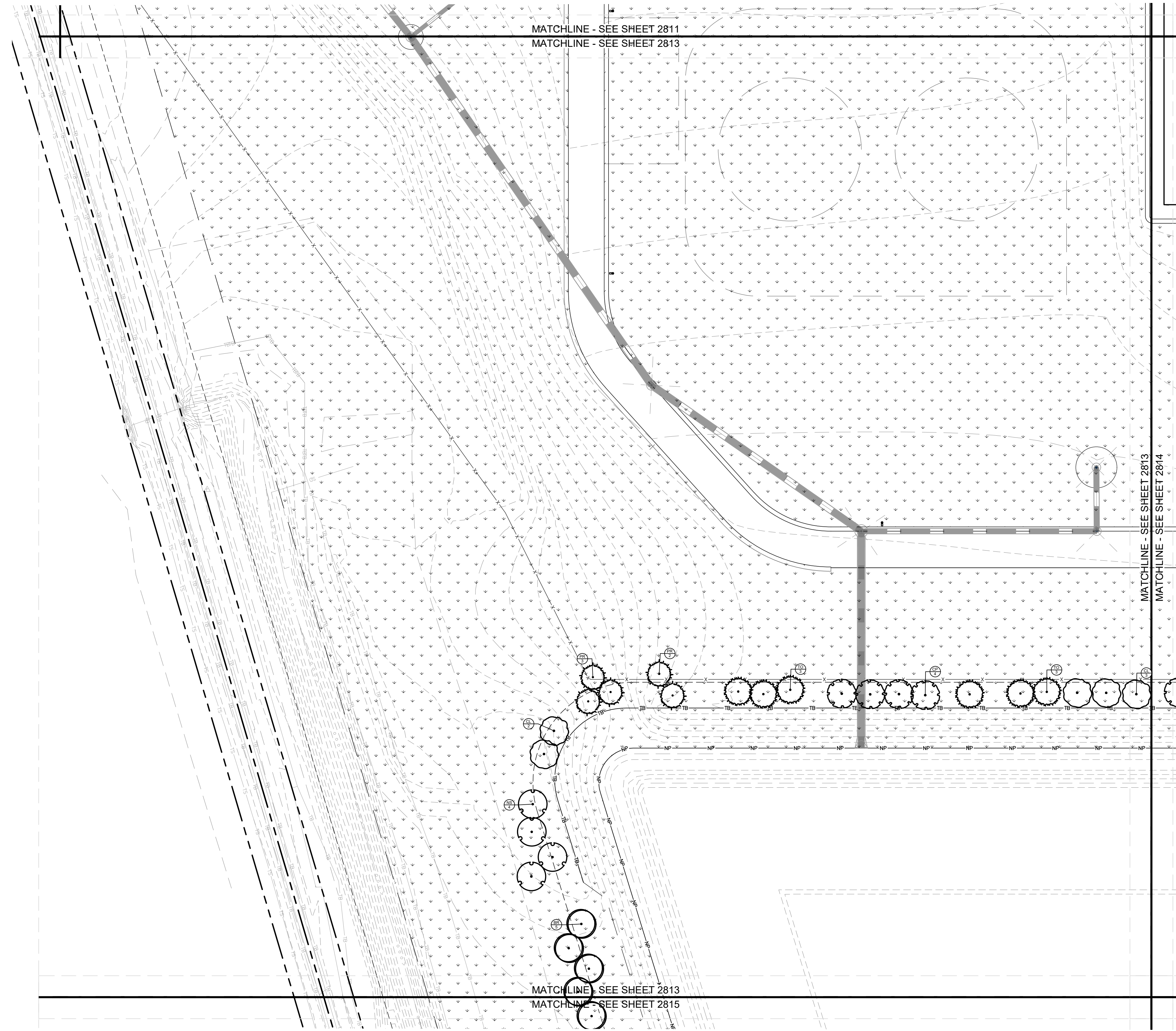
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**Malarkey Roofing Products**

MALARKEY,IND FRANKLIN,IN

PROJ. NO. 170509000  
 DWG. NO. 2812  
 SHEET 0

TITLE - PHASE 2 - FINAL BUILDOUT LANDSCAPE PLAN

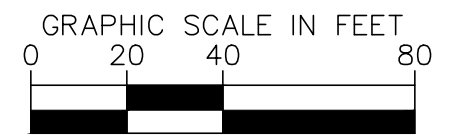


SEEDING LEGEND	
	PERMANENT SEEDING AMERITURE FRONTRUNNER BLEND TALL FESCUE, APPLY AT A RATE OF 350 LBS/ACRE (8LBS/1000 SQFT)

MULCHING LEGEND	
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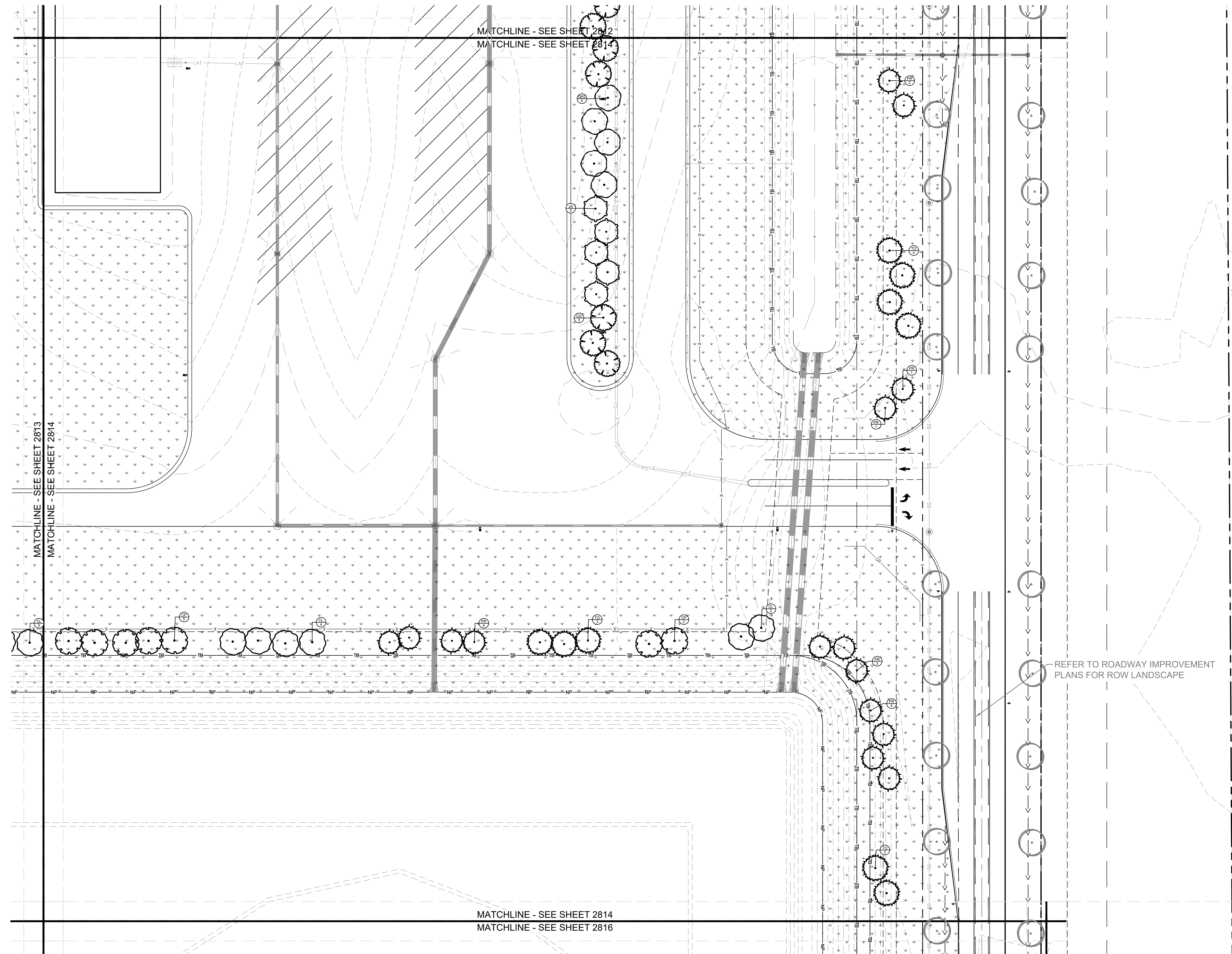
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TITLE - PHASE 2 - FINAL BUILDOUT  
 LANDSCAPE PLAN

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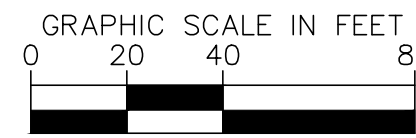


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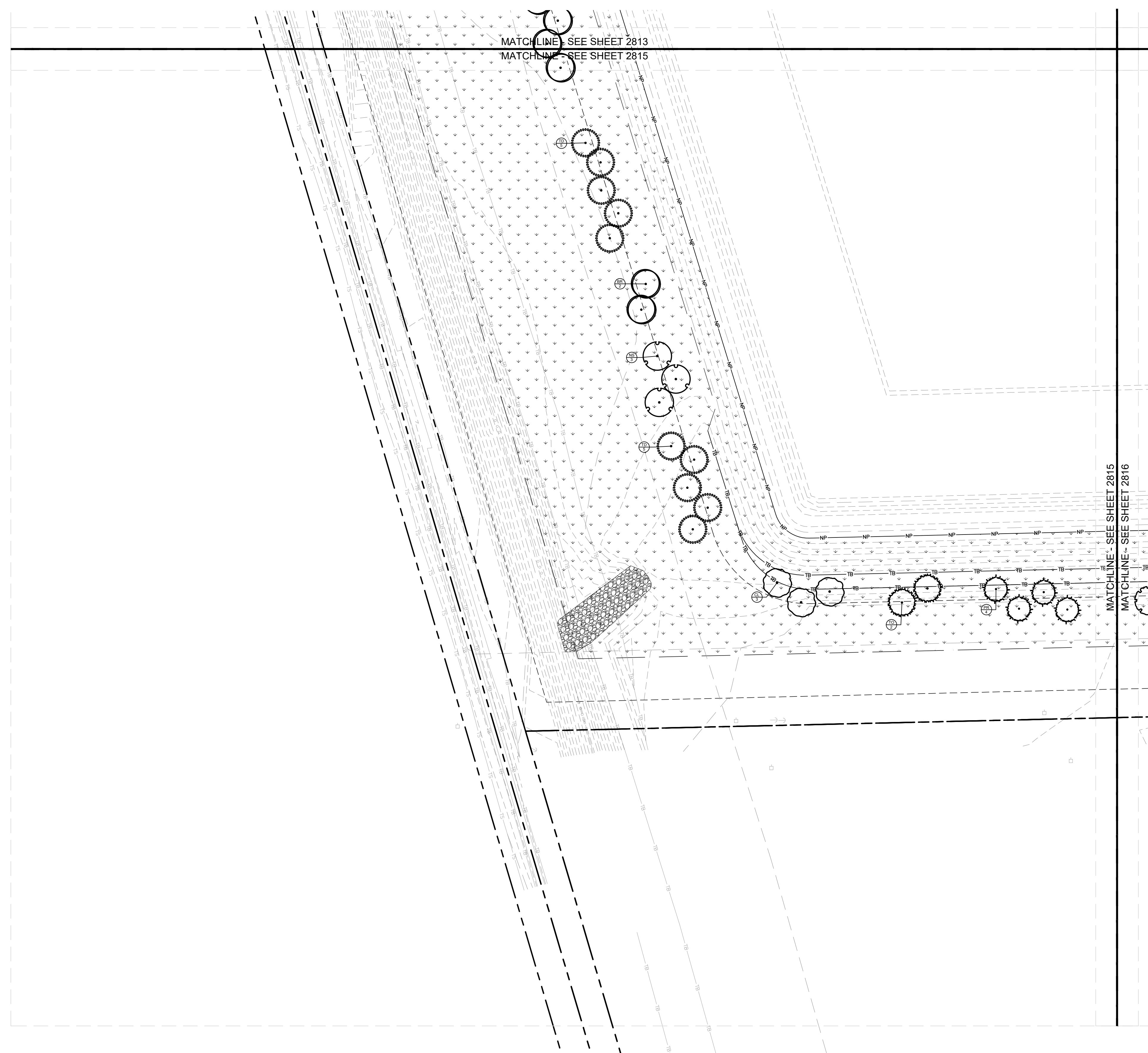
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PHASE 2 - FINAL BUILDOUT  
 LANDSCAPE PLAN

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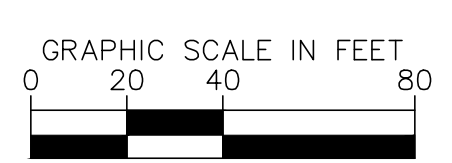
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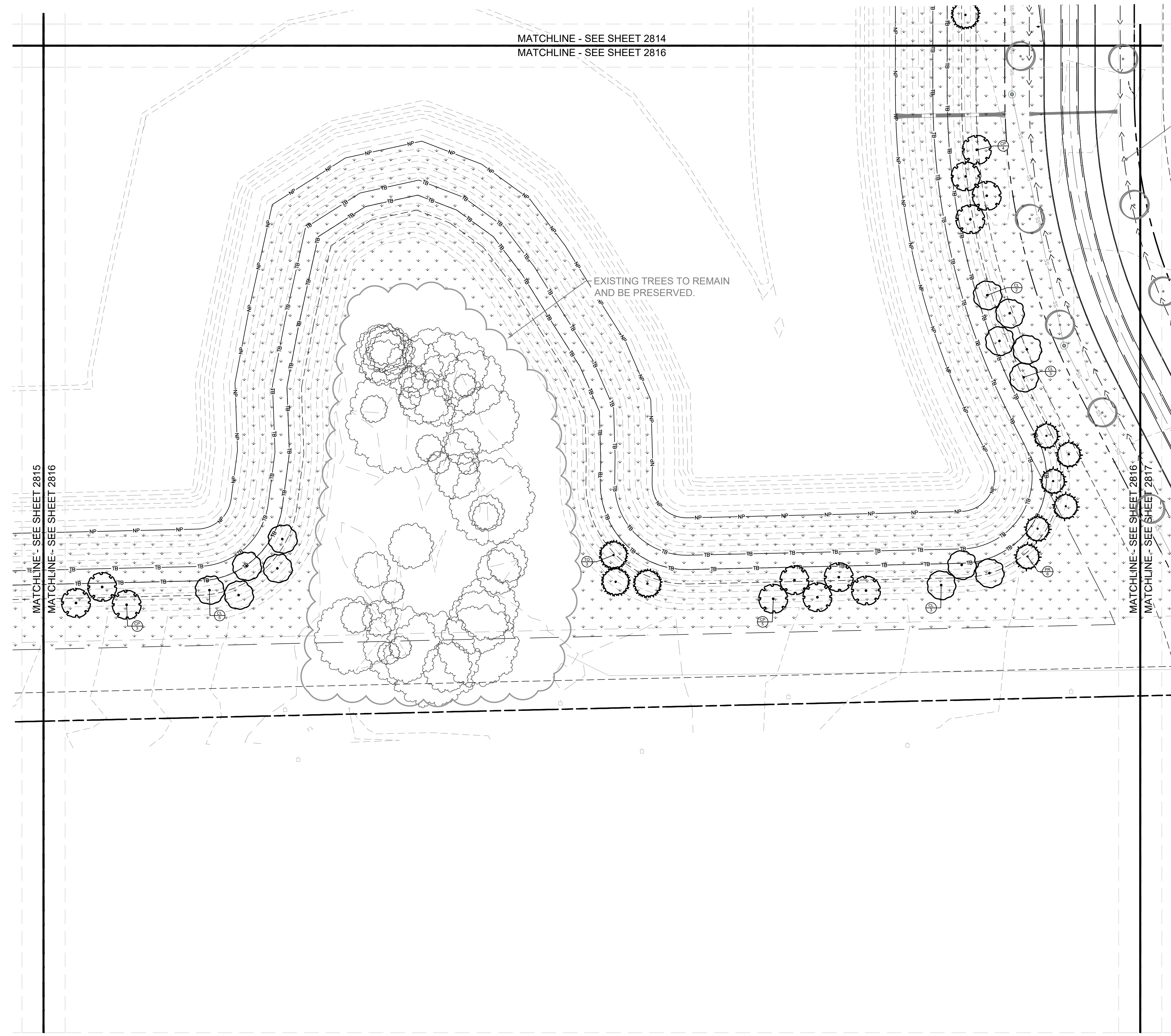
**Quad Plus**  
 Cooper & Associates, LLC  
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 2200 Ellis Road, New Lenox, Illinois, 60451  
 Ph. (844) 251-7823 www.quadplus.com

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 PHONE: 317-218-9560  
 WWW.KIMLEY-HORN.COM  
 KHA PROJECT # 170509000

**Malarkey Roofing Products**  
 MALARKEY,IND FRANKLIN,IN

PROJ. NO. 170509000	DWG. NO. 2815
SHEET	REV
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PHASE 2 - FINAL BUILDOUT  
 LANDSCAPE PLAN



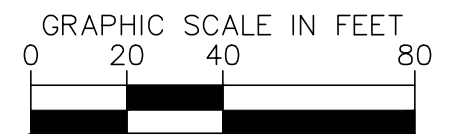
SEEDING LEGEND	
	PERMANENT SEEDING AMERITURE FRONTRUNNER BLEND TALL FESCUE; APPLY AT A RATE OF 350 LBS/ACRE (8LBS/1000 SQFT)

MULCHING LEGEND	
	MULCH HARDWOOD SHREDDED MULCH, NATURAL BROWN COLOR

**PLANT SCHEDULE**

CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	HT
<b>DECIDUOUS TREES</b>						
AR	72	ACER SACCHARUM	SUGAR MAPLE	B & B	2' CAL MIN	---
BR	7	BETULA NIGRA	RIVER BIRCH	B & B	2' CAL MIN	---
CE	16	CERCIS CANADENSIS	EASTERN REDBUD MULTI-TRUNK	B & B	2' CAL MIN	---
CF	17	CORNUS FLORIDA	FLOWERING DOGWOOD	B & B	2' CAL MIN	---
CG	69	CARYA GLABRA	PINKT HICKORY	B & B	2' CAL MIN	---
CL	42	CARYA LACINIOSA	SHELLBARK HICKORY	B & B	2' CAL MIN	---
CP	42	CRATAEGUS PHAENOPYRUM	WASHINGTON HAWTHORN	B & B	2' CAL MIN	---
GD	11	GYMNOCLADUS DIOICUS 'ESPRESSO'	KENTUCKY COFFEETREE	B & B	2' CAL MIN	---
JA	66	JUGLANS NIGRA	EASTERN BLACK WALNUT	B & B	2' CAL MIN	---
NS	7	NYSSA SILVATICA	TUPELO	B & B	2' CAL MIN	---
QRZ	73	QUERCUS RUBRA	NORTHERN RED OAK	B & B	2' CAL MIN	---
<b>EVERGREEN TREES</b>						
PR	45	PINUS RESINOSA	RED PINE	B & B	---	6' HT MIN
TD	10	TAXODIUM DISTICHUM	BALD CYPRESS	B & B	---	6' HT MIN
TO	41	THUJA OCCIDENTALIS	AMERICAN ARBORVITAE	B & B	---	6' HT MIN
CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	SIZE
<b>DECIDUOUS SHRUBS</b>						
AP	41	ARONIA MELANOCAPA	---	---	SEE PLAN	24" HT MIN

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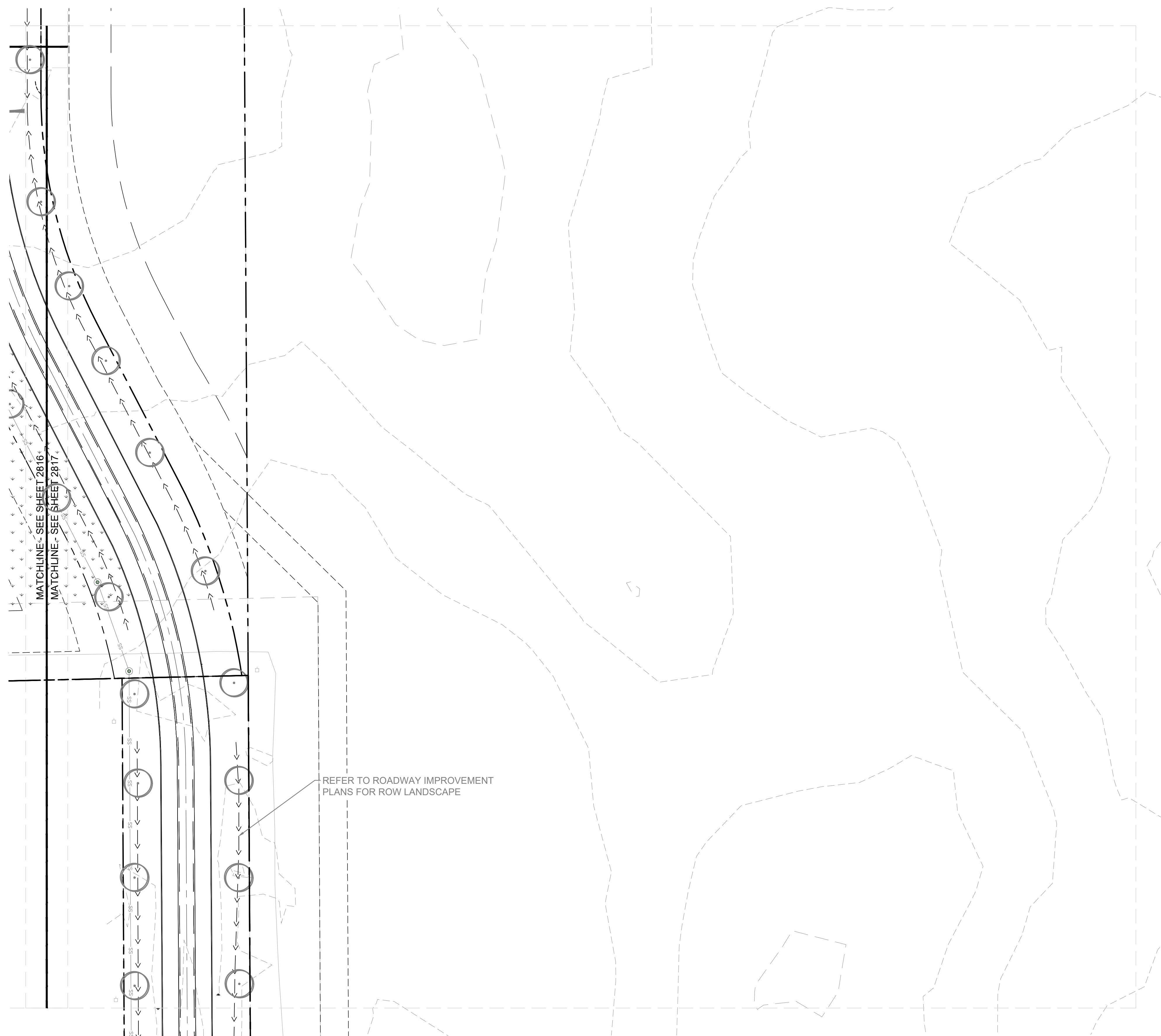
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**Malarkey Roofing Products**  
 MALARKEY,IND FRANKLIN,IN

PROJ. NO. 170509000	DWG. NO. 2816
SHEET	REV
0	0

TITLE - PHASE 2 - FINAL BUILDOUT  
 LANDSCAPE PLAN



**SEEDING LEGEND**

PERMANENT SEEDING  
 AMERITURF FRONTRUNNER BLEND TALL  
 FESCUE; APPLY AT A RATE OF 350 LBS/ACRE  
 (8LBS/1000 SQFT)

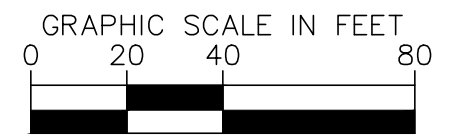
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MULCH  
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**PLANT SCHEDULE**

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<b>DECIDUOUS SHRUBS</b>						
AP	41	ARONIA MELANOCAPA	---	---	SEE PLAN	24" HT MIN

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PROFESSIONAL SEAL

Elizabeth Van Sledright

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**Malarkey Roofing Products**

MALARKEY,IND FRANKLIN,IN

PROJ. NO. 170509000  
 DWG. NO. 2817

TITLE - PHASE 2 - FINAL BUILDOUT LANDSCAPE PLAN

SHEET 0  
 REV 0





ORDINANCE CHART		
ZONING: IG - INDUSTRIAL: GENERAL	REQUIRED	PROVIDED
<b>SITE INTERIOR REQUIREMENTS</b>		
1 deciduous or evergreen tree / 5,000 ft <sup>2</sup>	992,057 ft <sup>2</sup> / 5,000 ft <sup>2</sup> = 198 trees 29 existing trees 198-29 = 169 trees required	169 trees provided
<b>PERIMETER PARKING AREA</b>		
1 tree / 80 linear feet of landscaped area	3,238 LF/80 = 41 trees + 41 shrubs	41 shrubs + 41 trees provided
1 shrub / every one tree required		
<b>INTERIOR PARKING AREA</b>		
Landscape islands with a surface area equal to 5% of the area of the paved surface.	Parking Lot: 66,921 ft <sup>2</sup> 66,921 x 0.05 = 3,346 ft <sup>2</sup> 3,346 ft <sup>2</sup> / 300 ft <sup>2</sup> = 12 trees	Parking Lot: 12 trees provided
A minimum of 1 broad leaf / deciduous tree shall be provided for every 300ft <sup>2</sup> of landscaped area required	Surrounding Parking Lot: 1,415,291 ft <sup>2</sup> 1,429,244 x 0.05 = 70,764 ft <sup>2</sup> 70,764 ft <sup>2</sup> / 300 ft <sup>2</sup> = 236 trees	Surrounding Parking Lot: 236 trees *Required quantity is provided. Trees are relocated on-site where providing interior landscaping is not feasible due to vehicular circulation and storage use.
<b>EXISTING TREES</b>		
Existing trees to remain and be preserved.	29 trees in fair or above condition to remain, be preserved, and counted towards site interior requirements.	29 trees in fair or above condition to remain, be preserved, and counted towards site interior requirements.

**Re: Kimley Horn - Franklin Indiana (Graham Ditch)**

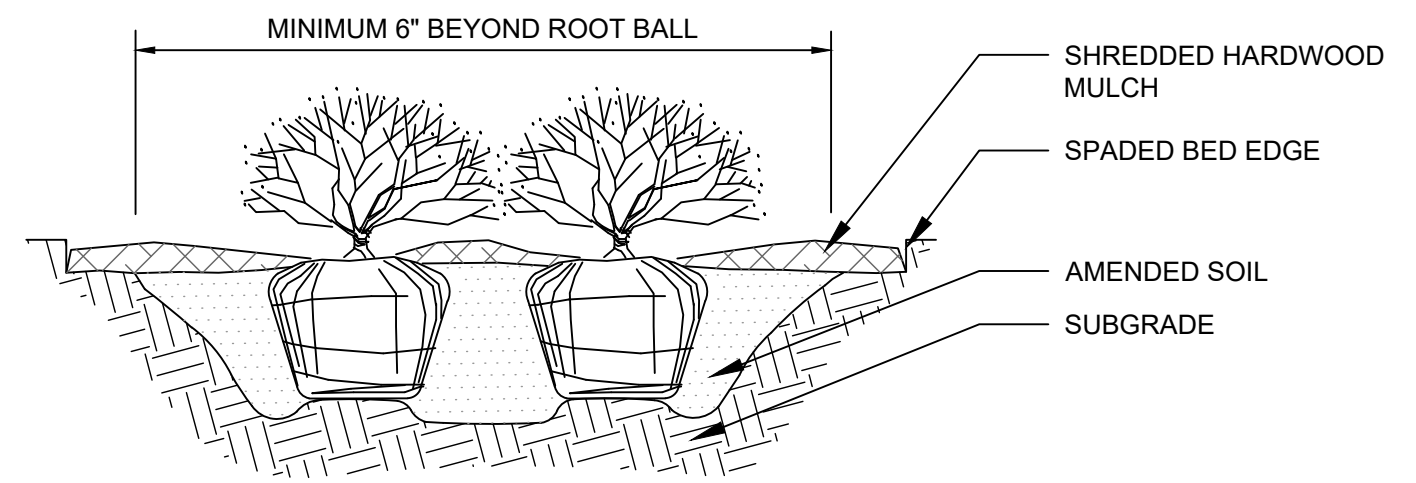
#	Species	Scientific Name	Size	Condition	Observation
1	Kentucky coffeetree	<i>Gymnocladus dioicus</i>	10	Fair	
2	Kentucky coffeetree	<i>Gymnocladus dioicus</i>	13	Fair	
3	Kentucky coffeetree	<i>Gymnocladus dioicus</i>	10	Fair	
4	Kentucky coffeetree	<i>Gymnocladus dioicus</i>	9	Fair	
5	Kentucky coffeetree	<i>Gymnocladus dioicus</i>	10	Fair	
6	Kentucky coffeetree	<i>Gymnocladus dioicus</i>	9	Fair	
7	Hackberry, Eastern	<i>Celtis occidentalis</i>	13	Fair	
8	Hawthorn	<i>Crataegus var.</i>	6	Fair	
9	Hackberry, eastern	<i>Celtis occidentalis</i>	12	Fair	
11	Hackberry, eastern	<i>Celtis occidentalis</i>	12	Fair	
14	Hickory, shagbark	<i>Carya ovata</i>	5	Good	
15	Hawthorn	<i>Crataegus var.</i>	15	Fair	5 Stems
16	Cherry, black	<i>Prunus serotina</i>	5	Fair	
17	Hawthorn	<i>Crataegus var.</i>	10	Fair	
19	Hawthorn	<i>Crataegus var.</i>	5	Good	
20	Hickory, shagbark	<i>Carya ovata</i>	6	Good	
22	Cherry, black	<i>Prunus serotina</i>	8	Fair	
23	Cherry, black	<i>Prunus serotina</i>	6	Fair	
24	Maple, silver	<i>Acer saccharinum</i>	10	Fair	
25	Maple, silver	<i>Acer saccharinum</i>	9	Fair	
26	Maple, silver	<i>Acer saccharinum</i>	14	Fair	
27	Maple, silver	<i>Acer saccharinum</i>	14	Fair	
28	Maple, silver	<i>Acer saccharinum</i>	18	Fair	
31	Hackberry, eastern	<i>Celtis occidentalis</i>	17	Fair	
32	Hackberry, eastern	<i>Celtis occidentalis</i>	5	Good	
33	Hackberry, eastern	<i>Celtis occidentalis</i>	5	Good	
37	Hackberry, eastern	<i>Celtis occidentalis</i>	5	Good	
38	Cherry, black	<i>Prunus serotina</i>	8	Fair	
42	Hawthorn	<i>Crataegus var.</i>	5	Fair	

**LANDSCAPE NOTES**

- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING MATERIALS AND PLANTS SHOWN ON THE LANDSCAPE PLAN. THE CONTRACTOR IS RESPONSIBLE FOR THE COST TO REPAIR UTILITIES, ADJACENT LANDSCAPE, PUBLIC AND PRIVATE PROPERTY THAT IS DAMAGED BY THE CONTRACTOR OR THEIR SUBCONTRACTOR'S OPERATIONS DURING INSTALLATION OR DURING THE SPECIFIED MAINTENANCE PERIOD. CALL FOR UTILITY LOCATIONS PRIOR TO ANY EXCAVATION AND PLANTING.
- THE CONTRACTOR SHALL REPORT ANY DISCREPANCY IN PLAN VS. FIELD CONDITIONS IMMEDIATELY TO THE LANDSCAPE ARCHITECT, PRIOR TO CONTINUING WITH THAT PORTION OF WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY OF THEIR TRENCHES OR EXCAVATIONS THAT SETTLE.
- ALL NURSERY STOCK SHALL BE WELL BRANCHED, HEALTHY, FULL, PRE-INOCULATED AND FERTILIZED. DECIDUOUS TREES SHALL BE FREE OF FRESH SCARS. TRUNKS WILL BE WRAPPED IF NECESSARY TO PREVENT SUN SCALD AND INSECT DAMAGE. THE LANDSCAPE CONTRACTOR SHALL REMOVE THE WRAP AT THE PROPER TIME AS A PART OF THIS CONTRACT.
- ALL NURSERY STOCK SHALL BE GUARANTEED, BY THE CONTRACTOR, FOR ONE YEAR FROM DATE OF FINAL INSPECTION.
- PLANTING AREA SOIL SHALL BE TOPSOIL FOR ALL TREE, SHRUB, ORNAMENTAL GRASS, PERENNIAL, AND ANNUAL BEDS. AMENDED SOIL SHALL BE PROVIDED AND GRADED BY THE GENERAL CONTRACTOR UP TO A 6" DEPTH BELOW FINISHED GRADE IN TURF AREAS AND A 12" DEPTH IN PLANTING AREAS.
- PLANTING AREA TOPSOIL SHALL BE AMENDED WITH 25% SPHAGNUM PEATMOSS, 5% HUMUS AND 85% PULVERIZED SOIL. AMENDED TURF AREA SOIL SHALL BE STANDARD TOPSOIL. TOPSOIL SHALL CONFORM TO TECHNICAL SPECIFICATIONS FREE OF HEAVY CLAY, ROCKS, AND DIRT CLOUDS OVER 1 INCH IN DIAMETER, AS WELL AS CONTAIN 3%-5% OF ORGANIC MATTER.
- SEED/SOD LIMIT LINES ARE APPROXIMATE. CONTRACTOR SHALL SEED/SOD ALL AREAS WHICH ARE DISTURBED BY GRADING WITH THE SPECIFIED SEED/SOD MIXES.
- CONTRACTOR SHALL STAKE INDIVIDUAL TREE AND SHRUB LOCATIONS AND OUTLINE HERBACEOUS PLANTING AREAS. SHALL ADJUST LOCATIONS WHEN REQUESTED, AND SHALL OBTAIN PROJECT LANDSCAPE ARCHITECT'S ACCEPTANCE PRIOR TO PLANTING.
- ALL PLANT ID TAGS SHALL BE REMOVED AFTER INSTALLATION.
- CONTRACTOR SHALL INSTALL SHREDDED HARDWOOD MULCH AT A 3" DEPTH TO ALL TREES, SHRUB, PERENNIAL, AND GROUND COVER AREAS. TREES PLACED IN AREA COVERED BY TURF SHALL RECEIVE A 4 FT WIDE MAXIMUM TREE RING WITH 3" DEPTH SHREDDED HARDWOOD MULCH. A SPADED BED EDGE SHALL SEPARATE MULCH BEDS FROM TURF OR SEEDED AREAS. A SPADED EDGE IS NOT REQUIRED ALONG CURBED EDGES.
- WEED FABRIC SHALL BE REQUIRED UNDER MULCH.
- MULCH SHALL NOT BE HELD IN PLACE BY PLASTIC NET, OR SPRAYING OF ANY BINDER MATERIAL OR ASPHALT EMULSION.
- DO NOT DISTURB THE EXISTING PAVING, LIGHTING, OR LANDSCAPING THAT EXISTS ADJACENT TO THE SITE UNLESS OTHERWISE NOTED ON PLAN.
- PLANT QUANTITIES SHOWN ARE FOR THE CONVENIENCE OF THE OWNER AND JURISDICTIONAL REVIEW AGENCIES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES AS DRAWN.
- THE OWNER'S REPRESENTATIVE MAY REJECT ANY PLANT MATERIALS THAT ARE DISEASED, DEFORMED, OR OTHERWISE NOT EXHIBITING SUPERIOR QUALITY.
- WEEDING, LANDSCAPE MAINTENANCE, AND WATERING TO BE THE CONTRACTOR'S RESPONSIBILITY DURING CONSTRUCTION. ALL PLANT MATERIALS REQUIRED BY THIS SECTION SHALL BE MAINTAINED AS LIVING VEGETATION AND SHALL BE PROMPTLY REPLACED BY LANDSCAPE CONTRACTOR DURING WARRANTY PERIOD IF THE PLANT MATERIAL HAS DIED PRIOR TO FINAL ACCEPTANCE. PLANTING AREAS SHALL BE KEPT FREE OF TRASH, LITTER, AND WEEDS AT ALL TIMES.
- THE CONTINUED MAINTENANCE OF ALL REQUIRED LANDSCAPING AFTER WARRANTY PERIOD EXPIRES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY ON WHICH SAID MATERIALS ARE REQUIRED.

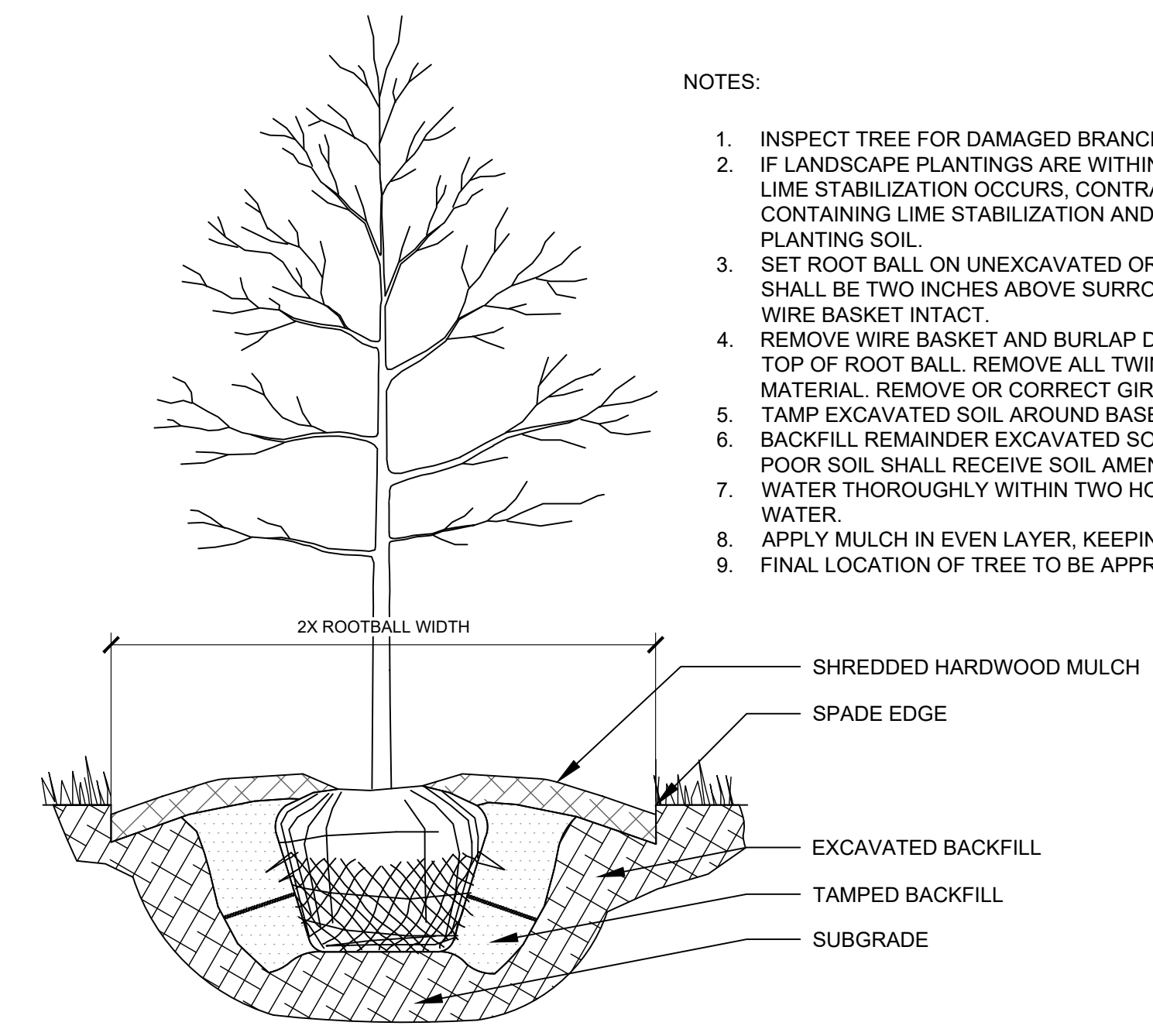
**NOTES:**

- INSPECT TREE FOR DAMAGED BRANCHES, APPLY CORRECTIVE PRUNING.
- IF LANDSCAPE PLANTINGS ARE WITHIN OR ADJACENT TO AREAS WHERE LIME STABILIZATION OCCURS, CONTRACTOR SHALL FULLY REMOVE SOIL CONTAINING LIME STABILIZATION AND REPLACE WITH HIGH QUALITY PLANTING SOIL.
- SET ROOT BALL ON UNEXCAVATED OR TAMPED SOIL. TOP OF ROOTBALL SHALL BE TWO INCHES ABOVE SURROUNDING GRADE WITH BURLAP AND WIRE BASKET INTACT.
- REMOVE WIRE BASKET AND BURLAP DOWN FOUR TO SIX INCHES BELOW TOP OF ROOT BALL. REMOVE ALL TWINE AND (IF USED), SYNTHETIC MATERIAL. REMOVE OR CORRECT GIRDLING ROOTS.
- TAMP EXCAVATED SOIL AROUND BASE OF ROOTBALL.
- BACKFILL REMAINDER EXCAVATED SOIL TAMPED LIGHTLY. HIGH CLAY OR POOR SOIL SHALL RECEIVE SOIL AMENDMENT PER LANDSCAPE NOTES.
- WATER THOROUGHLY WITHIN TWO HOURS USING 10 TO 15 GALLONS OF WATER.
- APPLY MULCH IN EVEN LAYER, KEEPING AWAY FROM ROOT FLARE.
- FINAL LOCATION OF TREE TO BE APPROVED BY OWNER.



**NOTES:**

- APPLY CORRECTIVE PRUNING.
- SET ROOT BALL OR CONTAINER ON UNEXCAVATED OR TAMPED SOIL. TOP OF ROOTBALL (CONTAINER) SHALL BE ONE INCH ABOVE SURROUNDING GRADE. FOR LARGER SHRUBS WITHIN PLANTING BED DIG A DEEPER PIT ONLY FOR THOSE SHRUBS.
- REMOVE BURLAP FROM TOP HALF THE LENGTH OF ROOTBALL. TWINE AND (IF USED) SYNTHETIC MATERIAL SHALL BE REMOVED FROM PLANTING BED. FOR CONTAINER GROWN SHRUBS, REMOVE CONTAINER AND LOOSEN ROOTS PRIOR TO INSTALLATION.
- REMOVE OR CORRECT GIRDLING ROOTS.
- PLUMB AND BACKFILL WITH AMENDED SOIL PER LANDSCAPE NOTES. WATER THOROUGHLY WITHIN TWO HOURS.
- APPLY MULCH IN EVEN LAYER, KEEPING AWAY FROM ROOT FLARE. MULCH LIMITS FOR SHRUBS EXTEND TO ALL LIMITS OF PLANTING BED, SEE PLANS FOR BED LAYOUTS.



**1 TREE PLANTING**

**2 SHRUB PLANTING**

NTS

NTS

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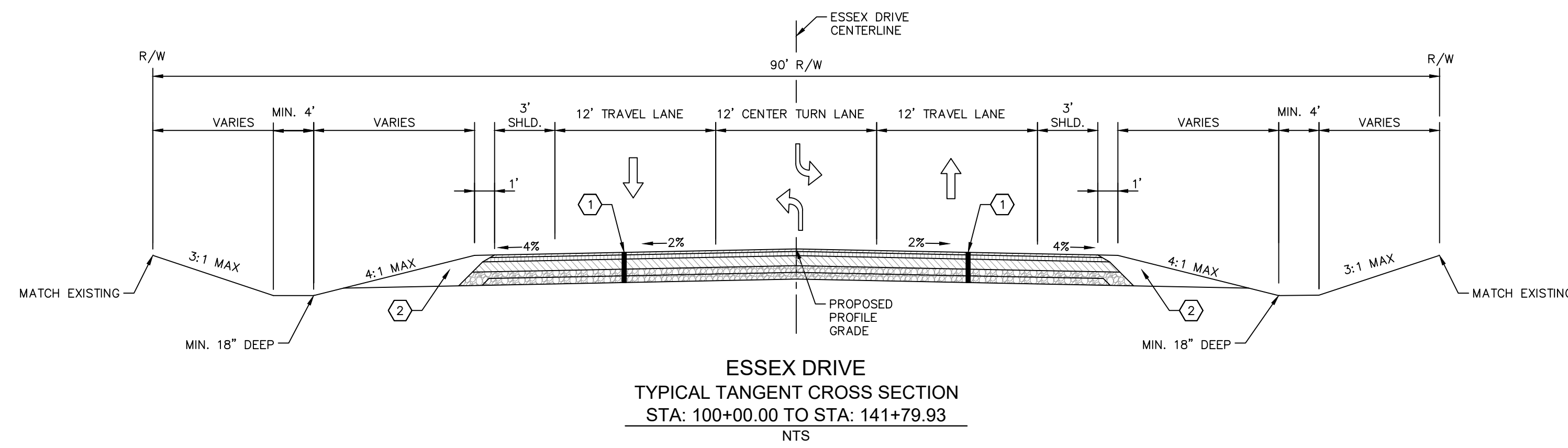
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 MALARKEY,IND FRANKLIN,IN

PROJ. NO. 170509000  
 DWG. NO. 2818  
 SHEET 0  
 REV 0

TITLE - PHASE 2 - FINAL BUILDOUT LANDSCAPE DETAILS



## LEGEND

- ① 165 LBS/SYS, QC/QA-HMA, SURFACE, 9.5 mm (PG 70-22) ON  
275 LBS/SYS, QC/QA-HMA, INTERMEDIATE, 19.0 mm ON  
440 LBS/SYS, QC/QA-HMA, BASE, 25.0 mm ON  
660 LBS/SYS, QC/QA-HMA, BASE, 25.0 mm ON  
3 IN. COMPACTED AGGREGATE, NO. 53 ON  
SUBGRADE TREATMENT, TYPE IBC
- ② COMPACTED AGGREGATE, NO. 53

## NOTES

INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED 2024, INDOT STANDARD DRAWINGS DATED 2023, AND CITY OF FRANKLIN DRAWINGS AND STANDARDS SHALL BE USED WITH THESE PLANS.

### ESSEX DR DESIGN INFORMATION

DESIGN SPEED	40 M.P.H.
TERRAIN	LEVEL
RURAL/URBAN	RURAL
MAXIMUM SUPERELEVATION	N/A
MAXIMUM GRADE	2.00%

PROFESSIONAL SEAL



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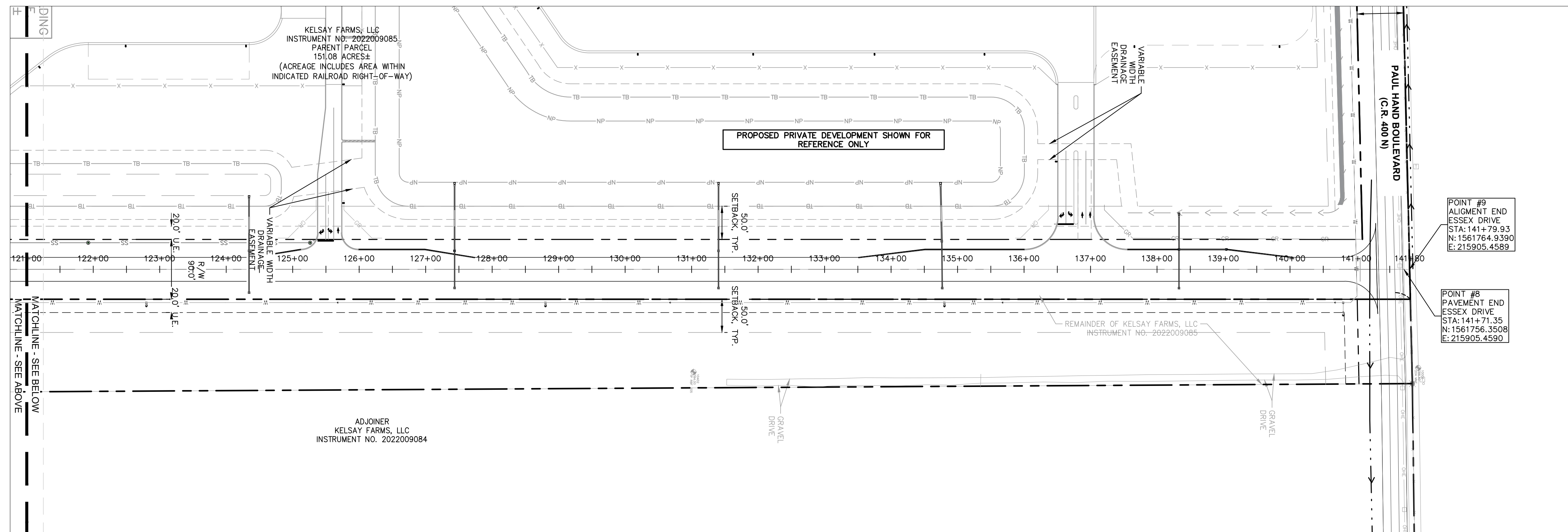
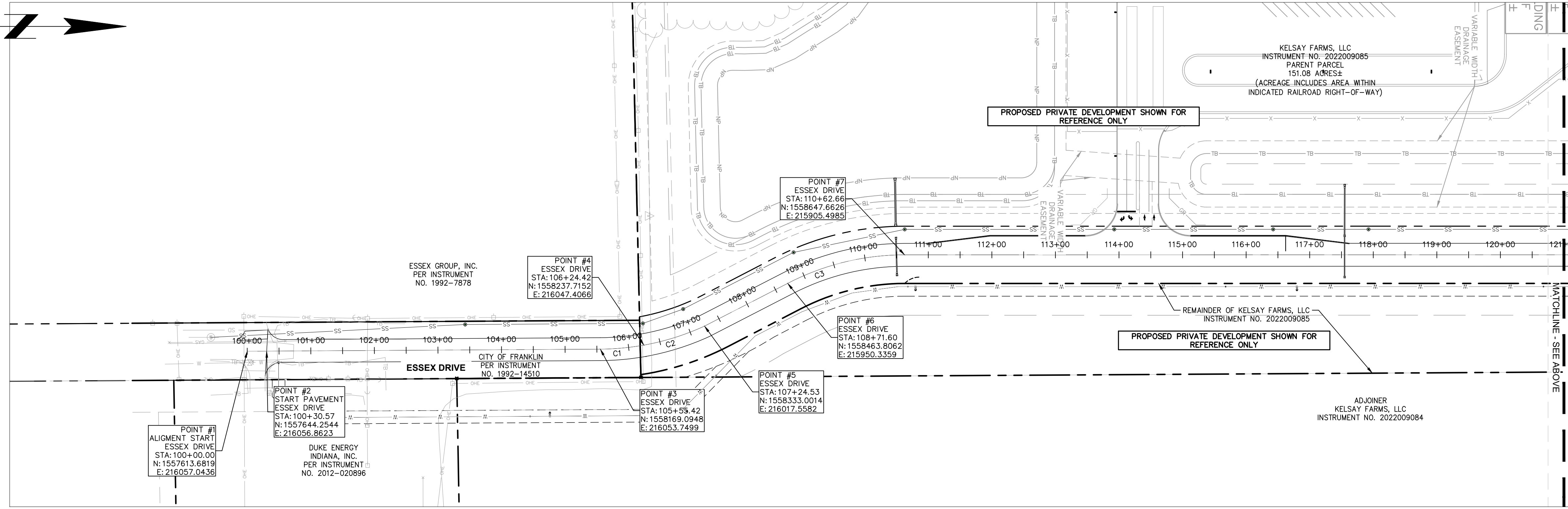
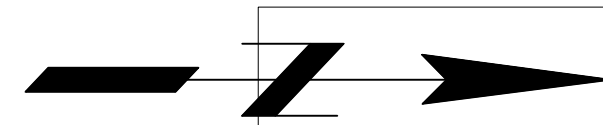
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KHA PROJECT # 170509000



MALARKEY,IND FRANKLIN,IN  
TITLE- PHASE 2 - FINAL BUILDOUT TYPICAL SECTIONS  
SHEET REV 0

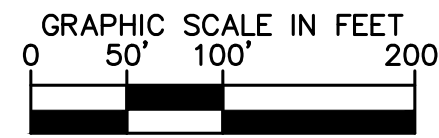
PROJ. NO.  
170509000  
DWG. NO.  
2902  
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REV 0

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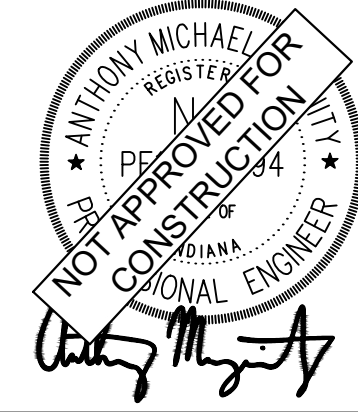


CURVE TABLE						
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA	TANGENT
C1	400.00'	69.00'	N5°16'53"W	68.91'	9°53'00"	34.59'
C2	400.00'	100.11'	N17°23'35"W	99.85'	14°20'24"	50.32'
C3	400.00'	191.06'	N13°42'19"W	189.24'	27°22'00"	97.39'

ESSEX DRIVE POINT TABLE			
POINT #	NORTHING	EASTING	STATION
1	1557614	216057	100+00.00
2	1557644	216057	100+30.57
3	1558189	216054	106+24.42
4	1558237	218047	105+55.42
5	1558333	216018	107+24.53
6	1558464	215950	108+71.60
7	1558648	215905	110+62.66
8	1531756	215905	141+71.35
9	1561765	215905	141+79.93



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DWG SIZE: 36" X 24"

REV	DESCRIPTION	DATE	IS.BY	REV	DESCRIPTION	DATE	IS.BY

SCALE: AS NOTED  
 DRWN.: VG  
 CHKD.: AMM  
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 APPD.:  
 DATE : 10/10/24



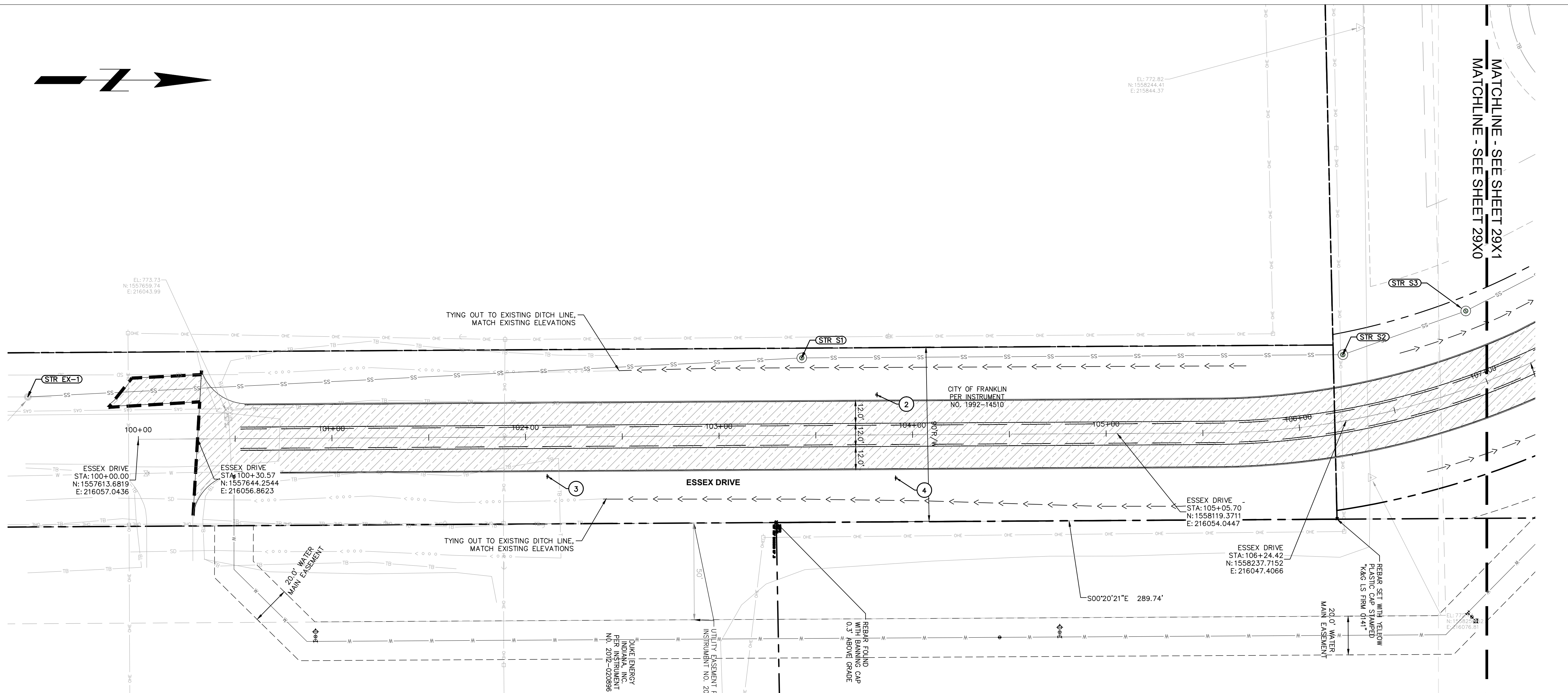
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 Ph. (844) 251-7823 www.quadplus.com



MALARKEY,IND FRANKLIN,IN  
 TITLE- PHASE 2 - FINAL BUILDOUT ALIGNMENT DATA

PROJ. NO. 170509000
DWG. NO. 2903
SHEET REV 0

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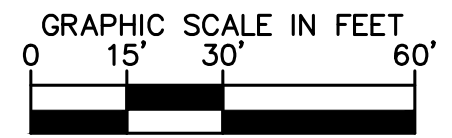
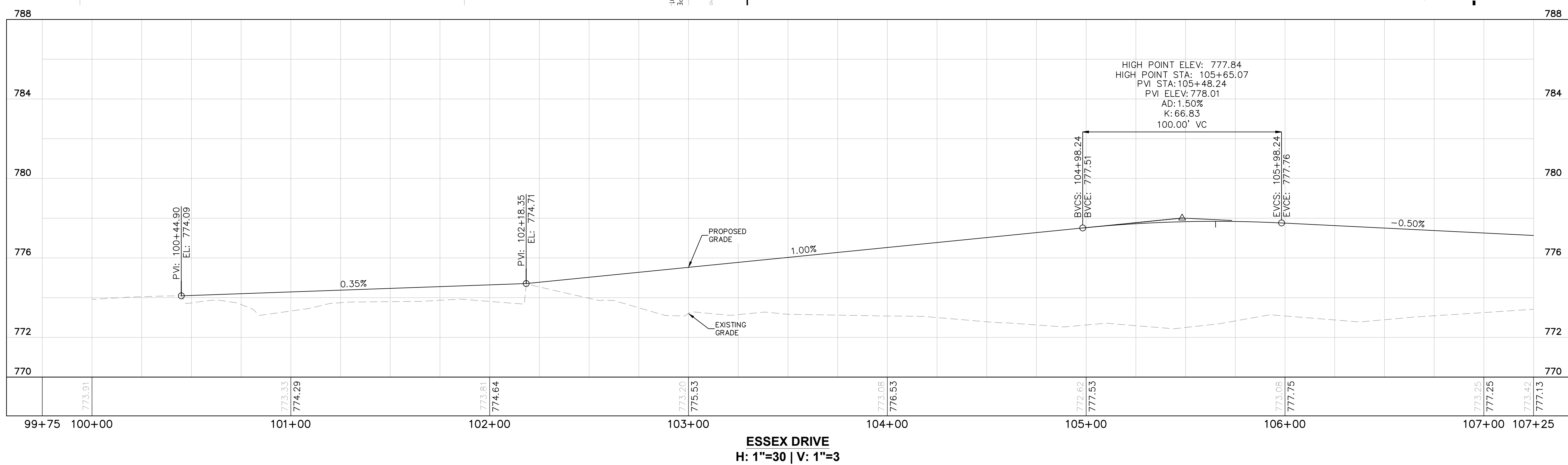


### PAVING LEGEND

- ASPHALT FULL-DEPTH PAVEMENT  
REFER TO NOTE #1 ON SHEET 2902
- SAWCUT LINE (FULL DEPTH)

### KEY NOTES

- CONCRETE CURB AND GUTTER (SEE DETAILS)
- SPEED LIMIT SIGN (MUTCD R2-1, SEE DETAILS)
- CENTER LANE TURN SIGN (MUTCD R3-9b, SEE DETAILS)
- CURB SIGN (MUTCD W1-2L, SEE DETAILS)



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DWG SIZE: 36" X 24"

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KHA PROJECT # 170509000

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MALARKEY,IND FRANKLIN,IN

PHASE 2 - FINAL BUILDOUT  
ROADWAY PLAN AND PROFILE

PROJ. NO.	170509000
DWG. NO.	2910
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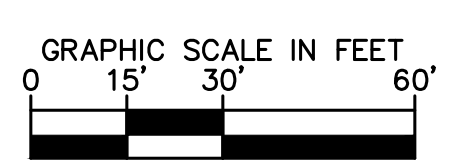
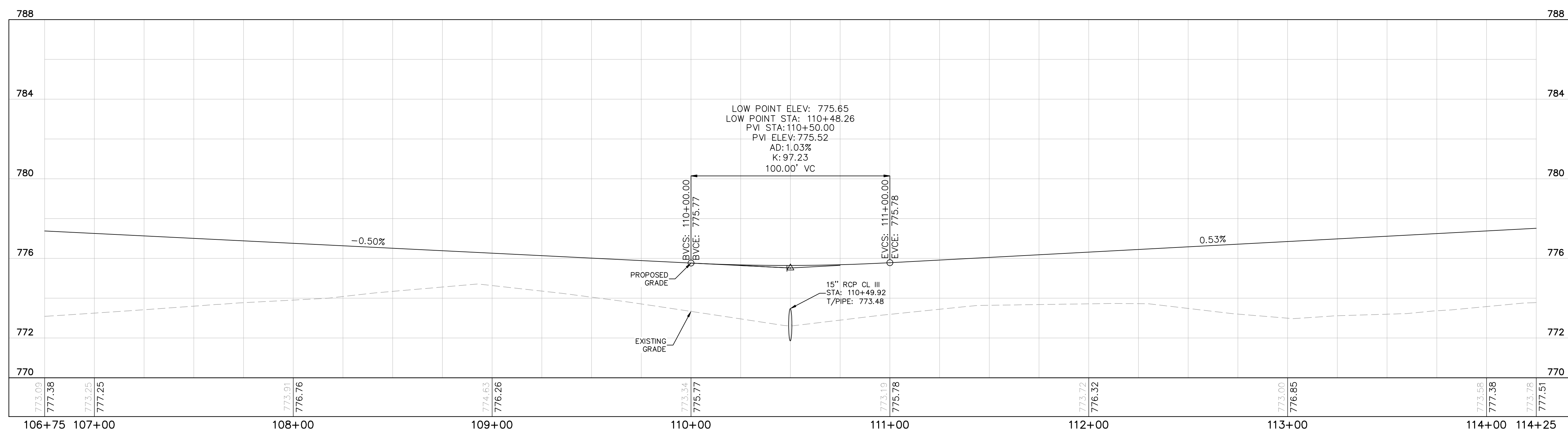
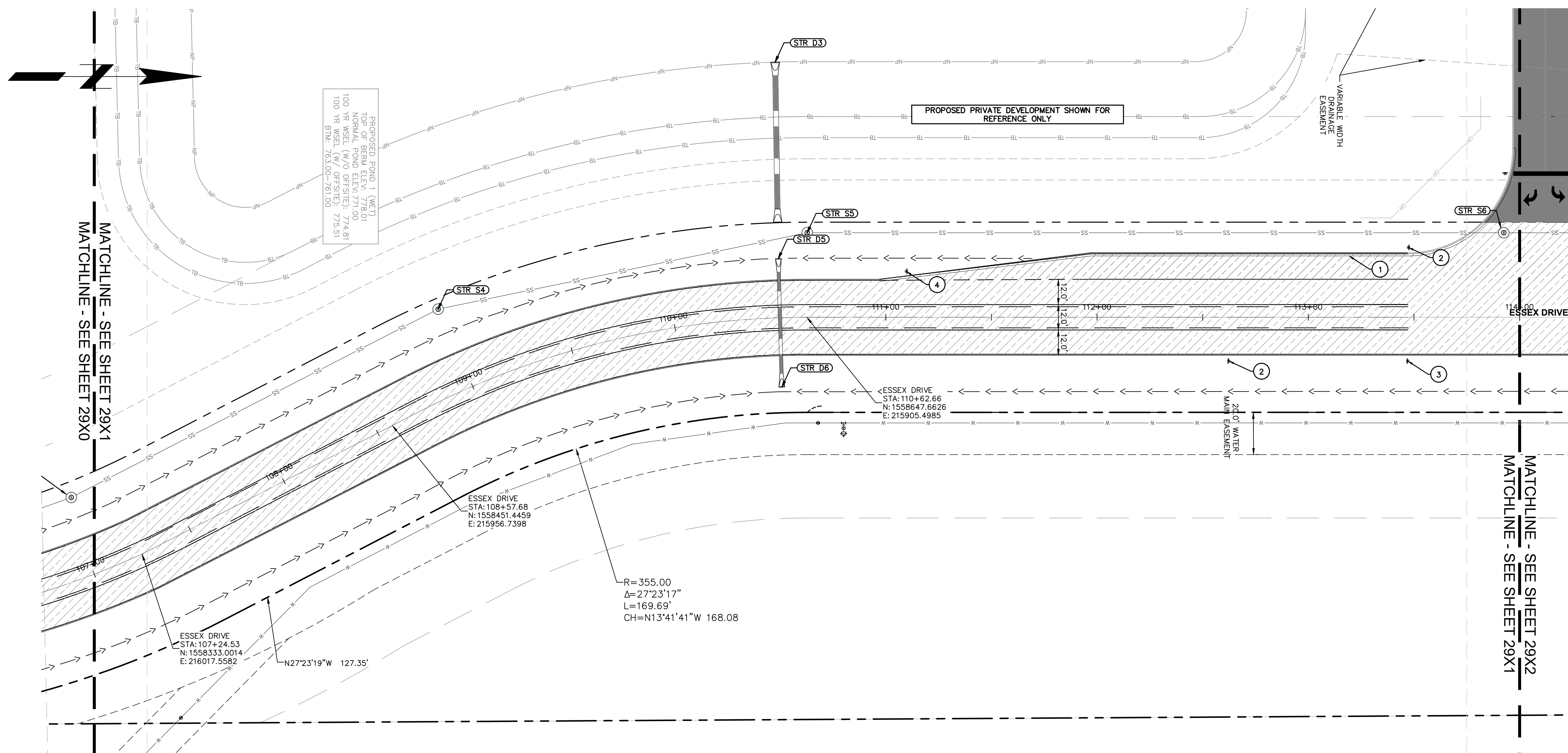
**PAVING LEGEND**

ASPHALT FULL-DEPTH PAVEMENT  
REFER TO NOTE #1 ON SHEET 2902

SAWCUT LINE (FULL DEPTH)

**KEY NOTES**

1. CONCRETE CURB AND GUTTER (SEE DETAILS)
2. SPEED LIMIT SIGN (MUTCD R2-1, SEE DETAILS)
3. CENTER LANE TURN SIGN (MUTCD R3-9b, SEE DETAILS)
4. CURB SIGN (MUTCD W1-2L, SEE DETAILS)



**ESSEX DRIVE**  
H: 1"=30 | V: 1"=3

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KHA PROJECT # 170509000



PROJ. NO. 170509000	FRANKLIN, IN
DWG. NO. 2911	
SHEET 0	
TITLE - PHASE 2 - FINAL BUILDOUT ROADWAY PLAN AND PROFILE	



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DWG SIZE: 36" X 24"

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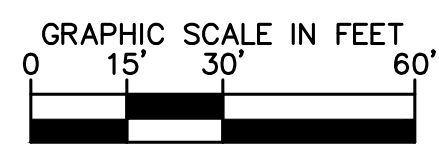
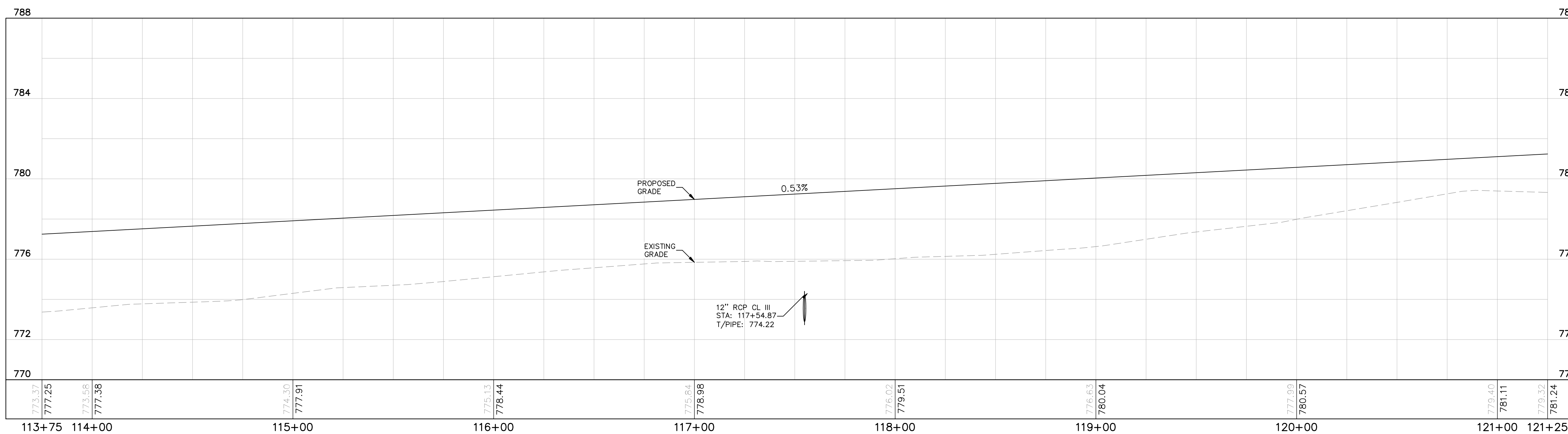
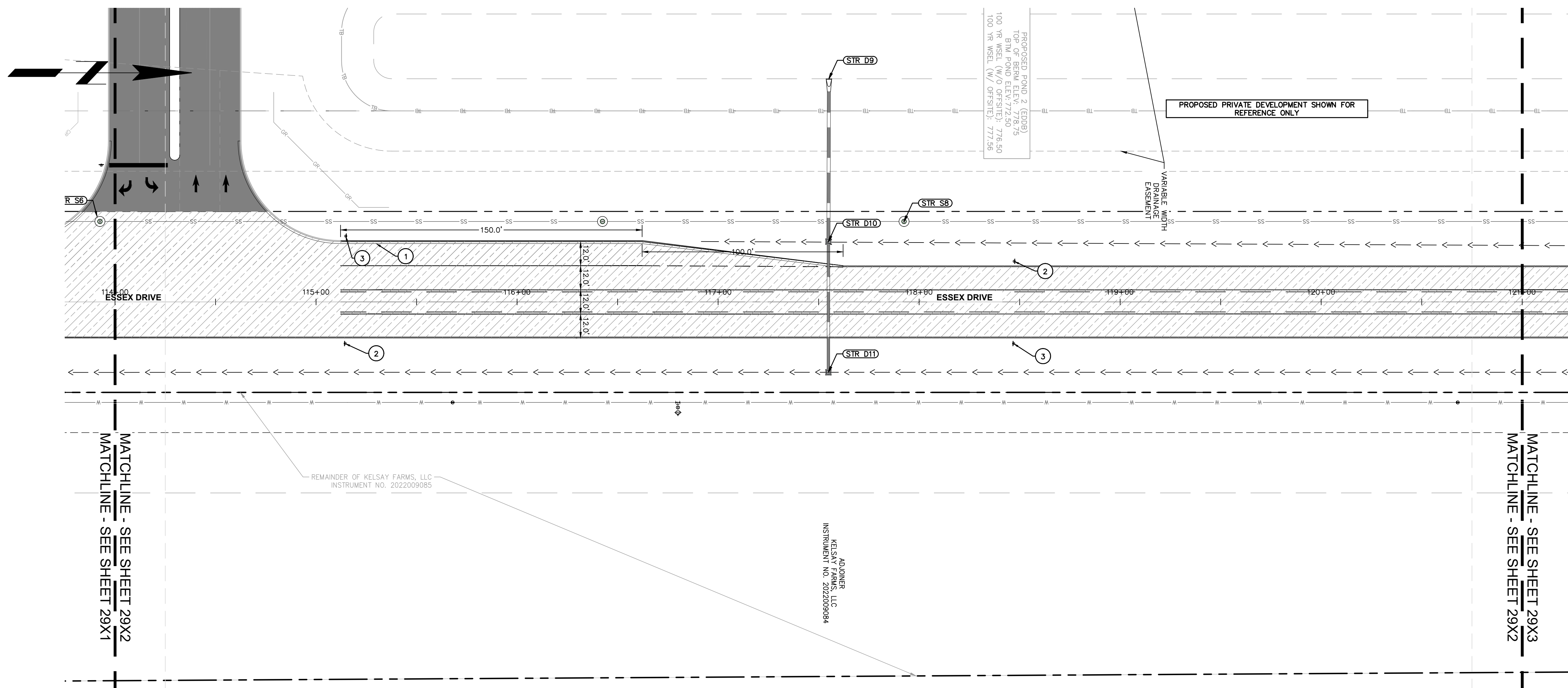
### PAVING LEGEND

ASPHALT FULL-DEPTH PAVEMENT  
REFER TO NOTE #1 ON SHEET 2902

SAWCUT LINE (FULL DEPTH)

### KEY NOTES

1. CONCRETE CURB AND GUTTER (SEE DETAILS)
2. SPEED LIMIT SIGN (MUTCD R2-1, SEE DETAILS)
3. CENTER LANE TURN SIGN (MUTCD R3-9b, SEE DETAILS)
4. CURB SIGN (MUTCD W1-2L, SEE DETAILS)



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DWG SIZE: 36" X 24"

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DRWN.: VG  
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DATE : 10/10/24



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MALARKEY,IND FRANKLIN,IN  
TITLE- PHASE 2 - FINAL BUILDOUT  
ROADWAY PLAN AND PROFILE

PROJ. NO. 170509000
DWG. NO. 2912
SHEET 0

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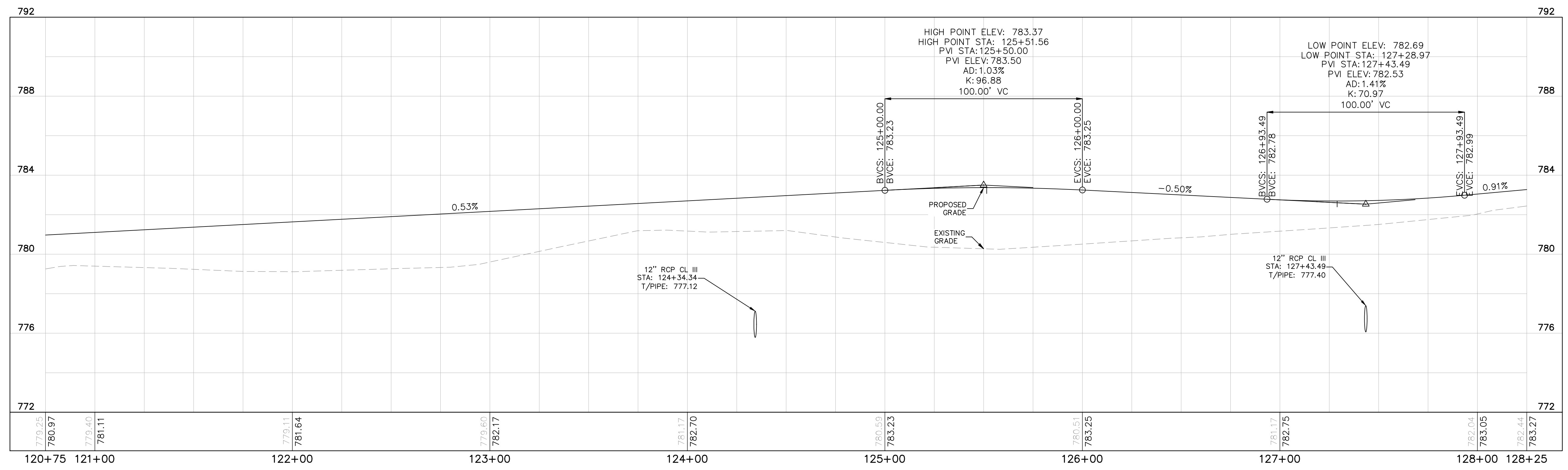
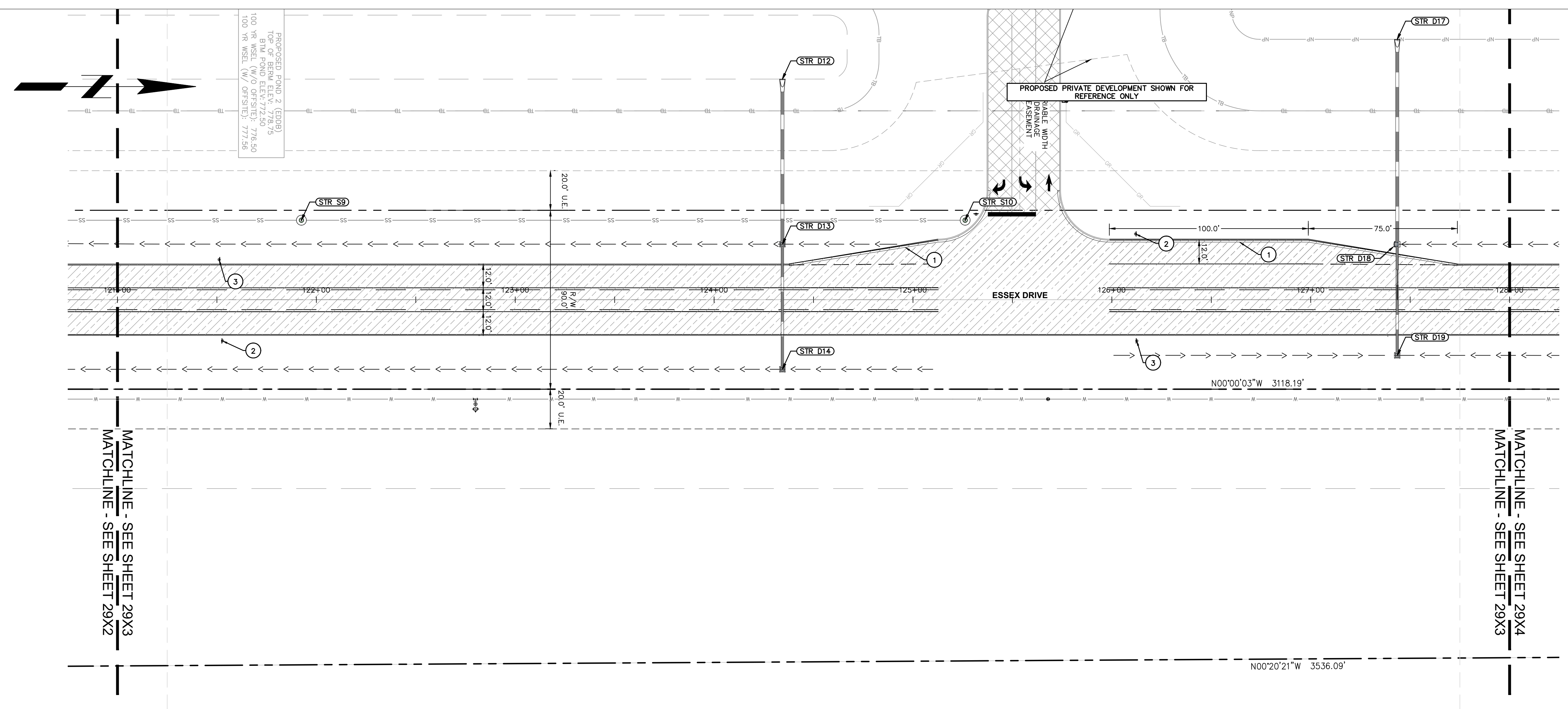
**PAVING LEGEND**

ASPHALT FULL-DEPTH PAVEMENT  
REFER TO NOTE #1 ON SHEET 2902

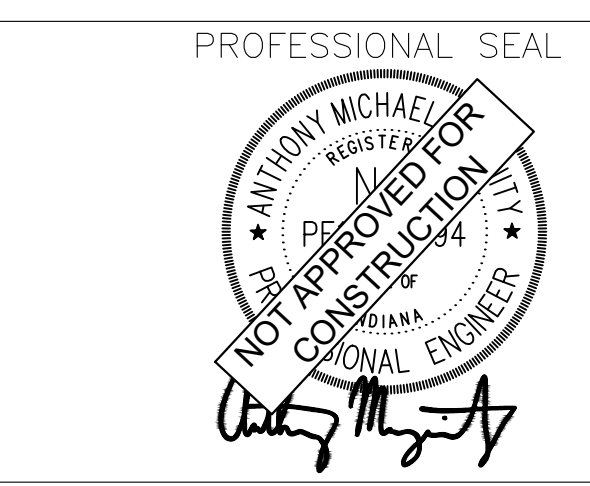
SAWCUT LINE (FULL DEPTH)

**KEY NOTES**

1. CONCRETE CURB AND GUTTER (SEE DETAILS)
2. SPEED LIMIT SIGN (MUTCD R2-1, SEE DETAILS)
3. CENTER LANE TURN SIGN (MUTCD R3-9b, SEE DETAILS)
4. CURB SIGN (MUTCD W1-2L, SEE DETAILS)



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DWG SIZE: 36" X 24"

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 APPD.:  
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PROJ. NO. 170509000	DWG. NO. 2913
SHEET 0	REV 0

TITLE - PHASE 2 - FINAL BUILDOUT  
ROADWAY PLAN AND PROFILE

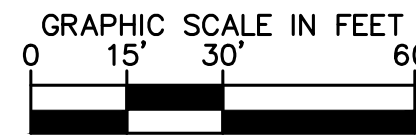
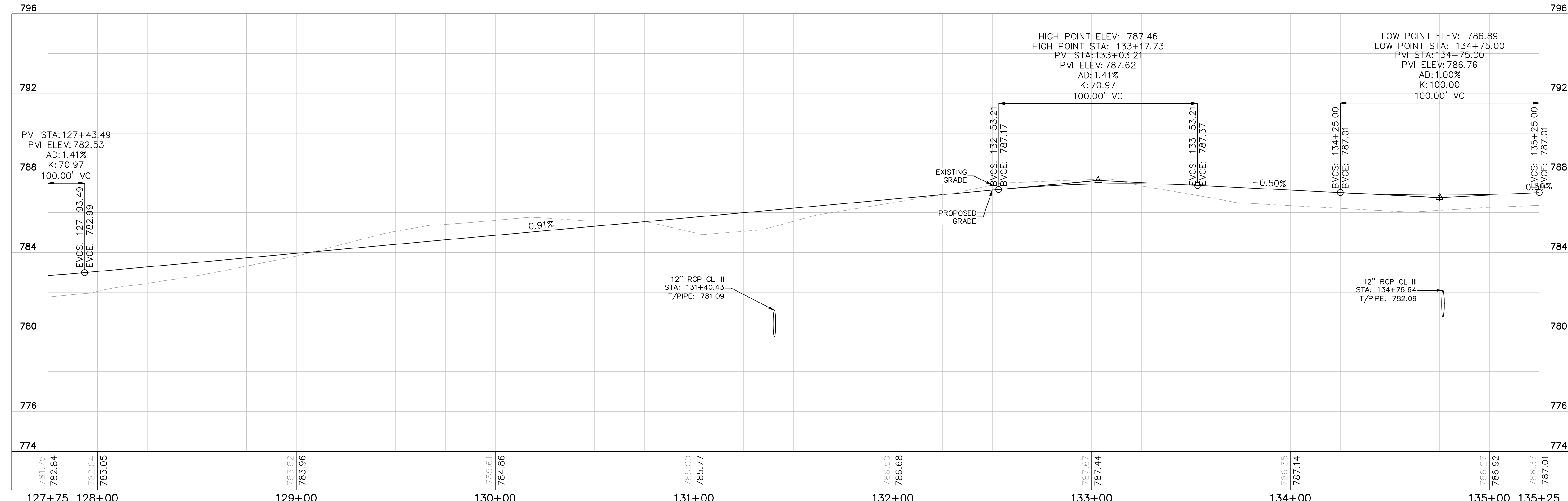
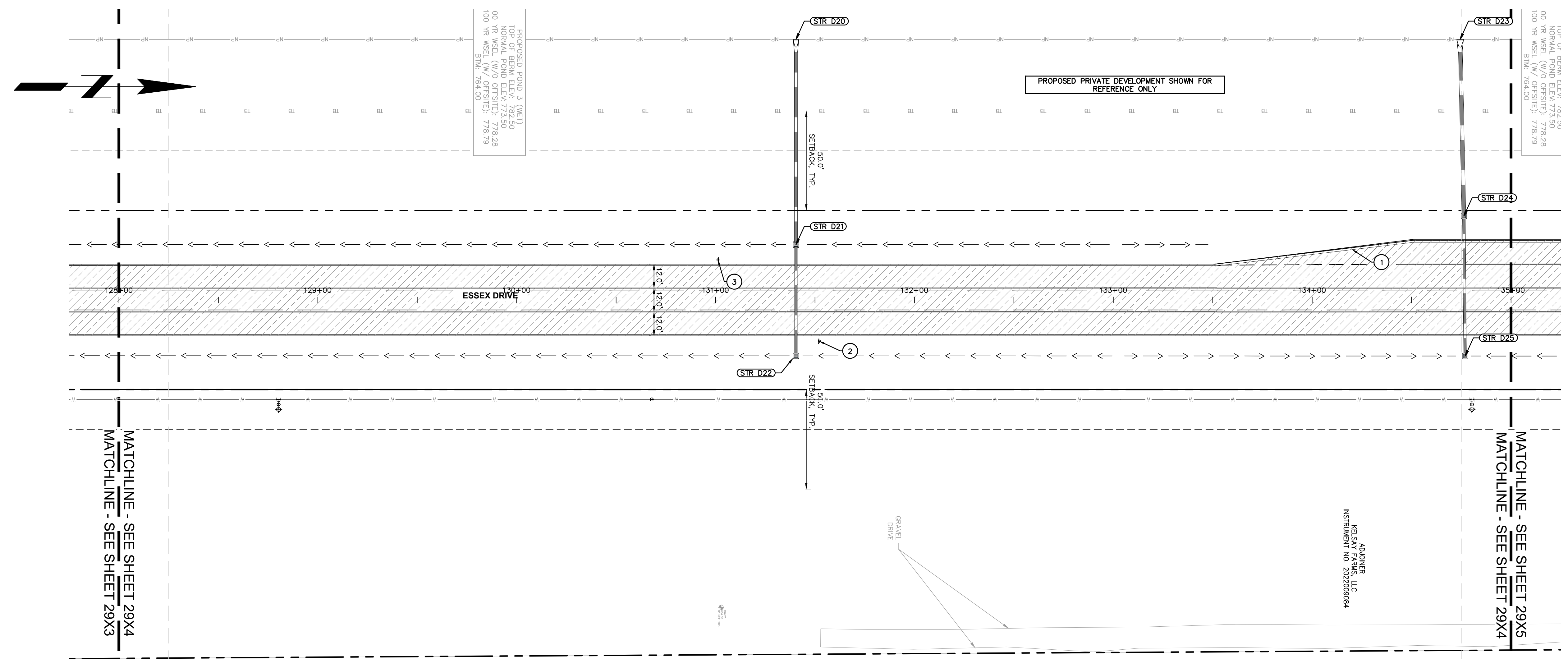


**PAVING LEGEND**

- ASPHALT FULL-DEPTH PAVEMENT  
REFER TO NOTE #1 ON SHEET 2902
- SAWCUT LINE (FULL DEPTH)

**KEY NOTES**

- CONCRETE CURB AND GUTTER (SEE DETAILS)
- SPEED LIMIT SIGN (MUTCD R2-1, SEE DETAILS)
- CENTER LANE TURN SIGN (MUTCD R3-9b, SEE DETAILS)
- CURB SIGN (MUTCD W1-2L, SEE DETAILS)



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**Malarkey Roofing Products**

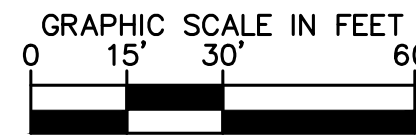
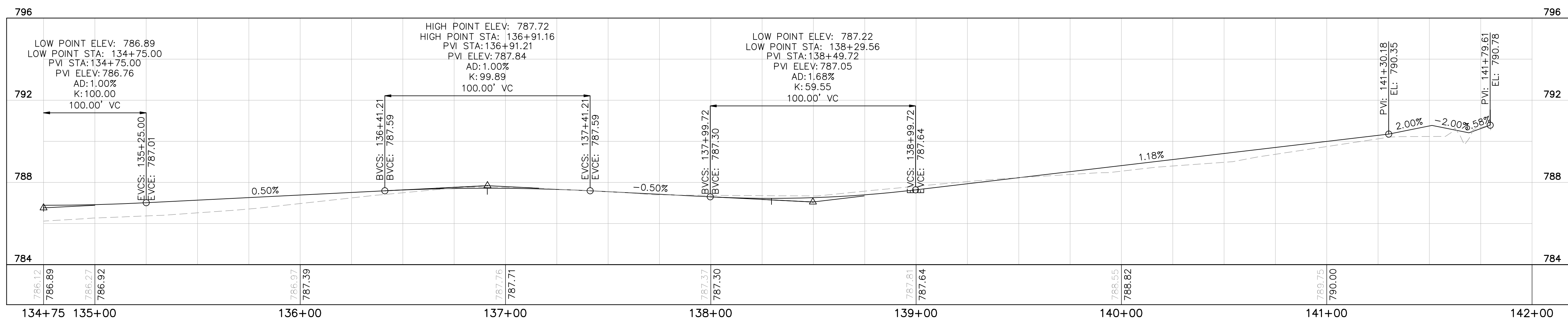
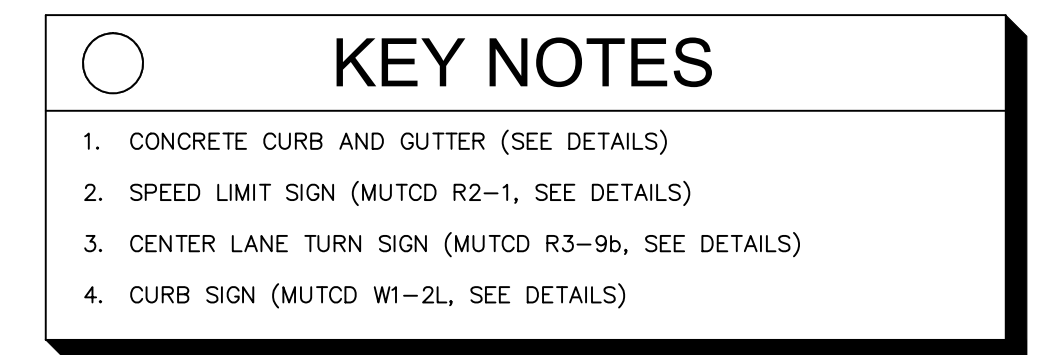
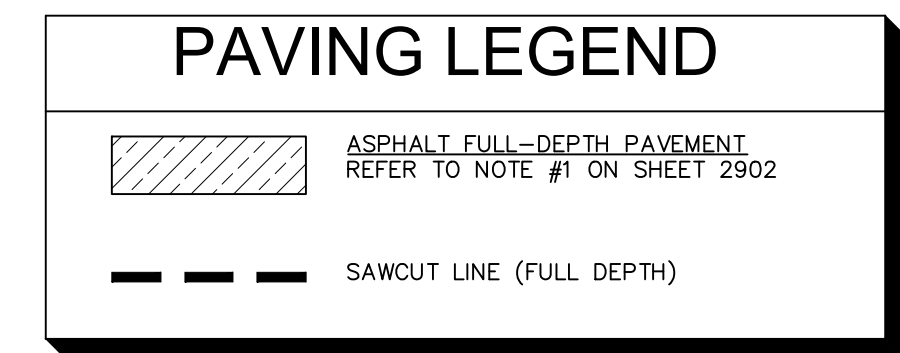
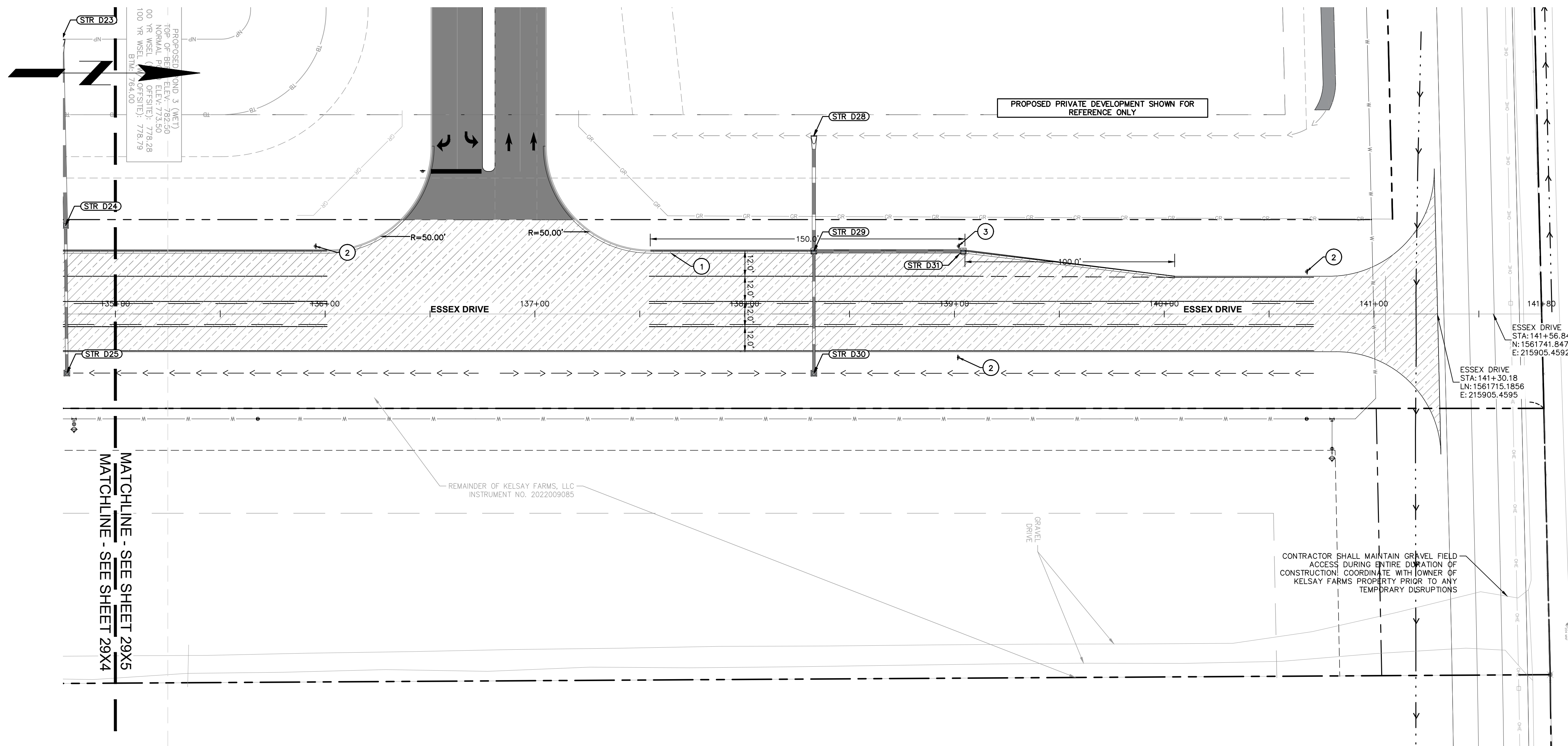
MALARKEY,IND FRANKLIN,IN

PHASE 2 - FINAL BUILDOUT  
ROADWAY PLAN AND PROFILE

PROJ. NO.	170509000
DWG. NO.	2914
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DWG SIZE: 36" X 24"

REV	DESCRIPTION	DATE	IS.BY	REV	DESCRIPTION	DATE	IS.BY

SCALE: AS NOTED

DRWN.: VG

CHKD.: AMM

APPD.: [Signature]

APPD.: [Signature]

DATE: 10/10/24

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Engineers - Project Managers

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KHA PROJECT # 170509000

MALARKEY,IND FRANKLIN,IN

PROJ. NO. 170509000

DWG. NO. 2915

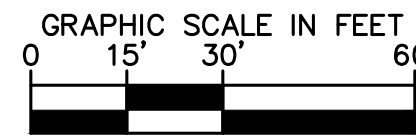
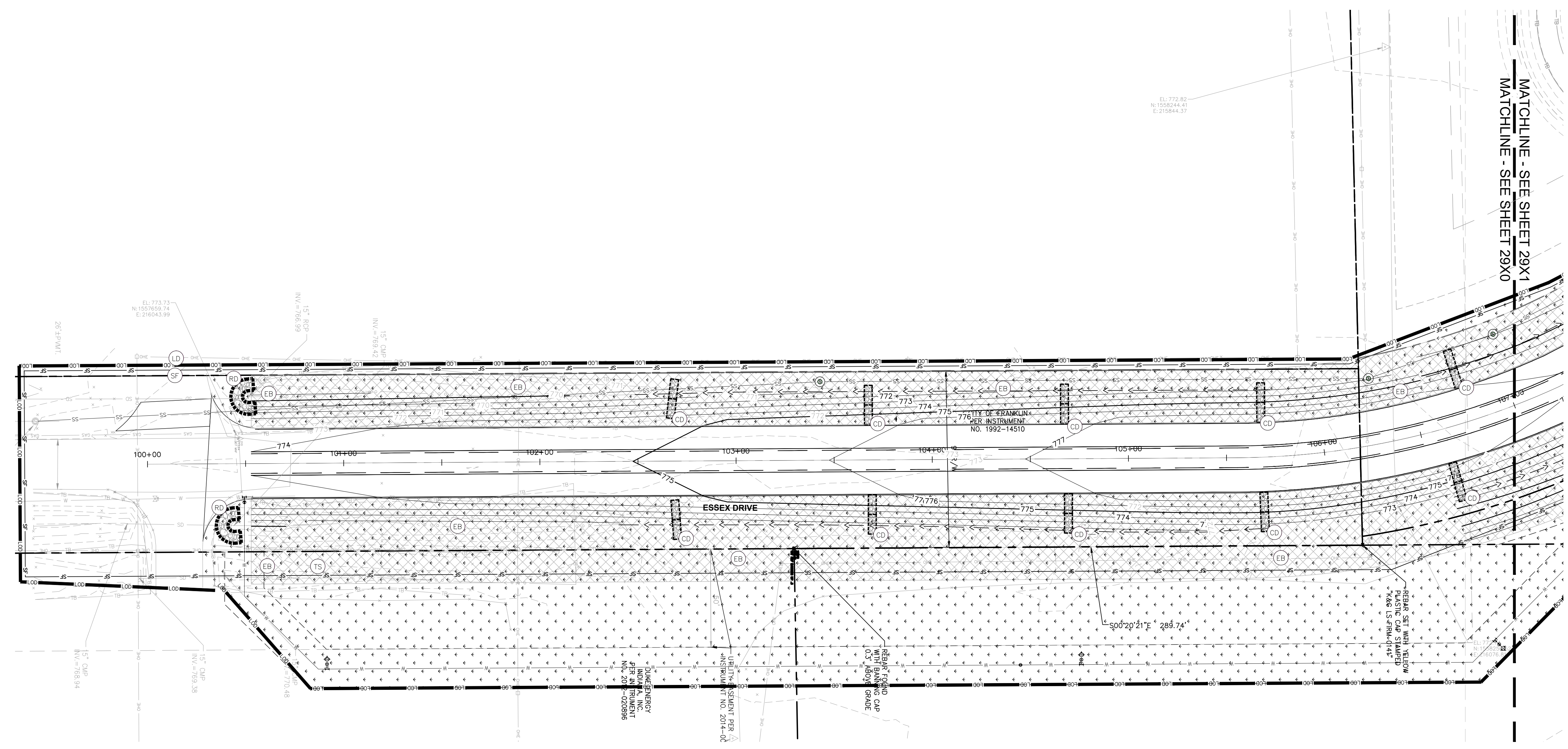
SHEET 0

TITLE- PHASE 2 - FINAL BUILDOUT ROADWAY PLAN AND PROFILE

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EROSION CONTROL LEGEND	
TS	TEMPORARY SEEDING (SEE EROSION CONTROL DETAILS)
EB	TEMPORARY EROSION CONTROL BLANKET (SEE TEMPORARY EROSION CONTROL NOTE #3)
CE	CONSTRUCTION ENTRANCE (SEE EROSION CONTROL DETAILS)
SF	SILT FENCE (SEE EROSION CONTROL DETAILS)
IP	AREA INLET PROTECTION (SEE EROSION CONTROL DETAILS)
CW	CONCRETE WASHOUT (SEE EROSION CONTROL DETAILS) (TO BE DETERMINED BY CONTRACTOR)
RR	RIP RAP (SEE EROSION CONTROL DETAILS)
RD	ROCK DONUT (SEE EROSION CONTROL DETAILS)
SS	TEMPORARY SOIL STOCKPILE
LD	LIMITS OF DISTURBANCE
CD	CHECK DAM
	-620- EXISTING CONTOURS
	-620- PROPOSED CONTOURS
NS	N.O.I. SIGN
SA	STAGING AREA
DD	DEBRIS DUMPSTER
PL	PORT-O-LET



**GENERAL PLAN NOTES**  
 REFER TO GENERAL NOTES SHEET FOR MORE INFORMATION INCLUDING THE FOLLOWING: EXISTING LEGEND, BENCHMARK INFORMATION, AND SPECIFIC GENERAL PLAN NOTES.)

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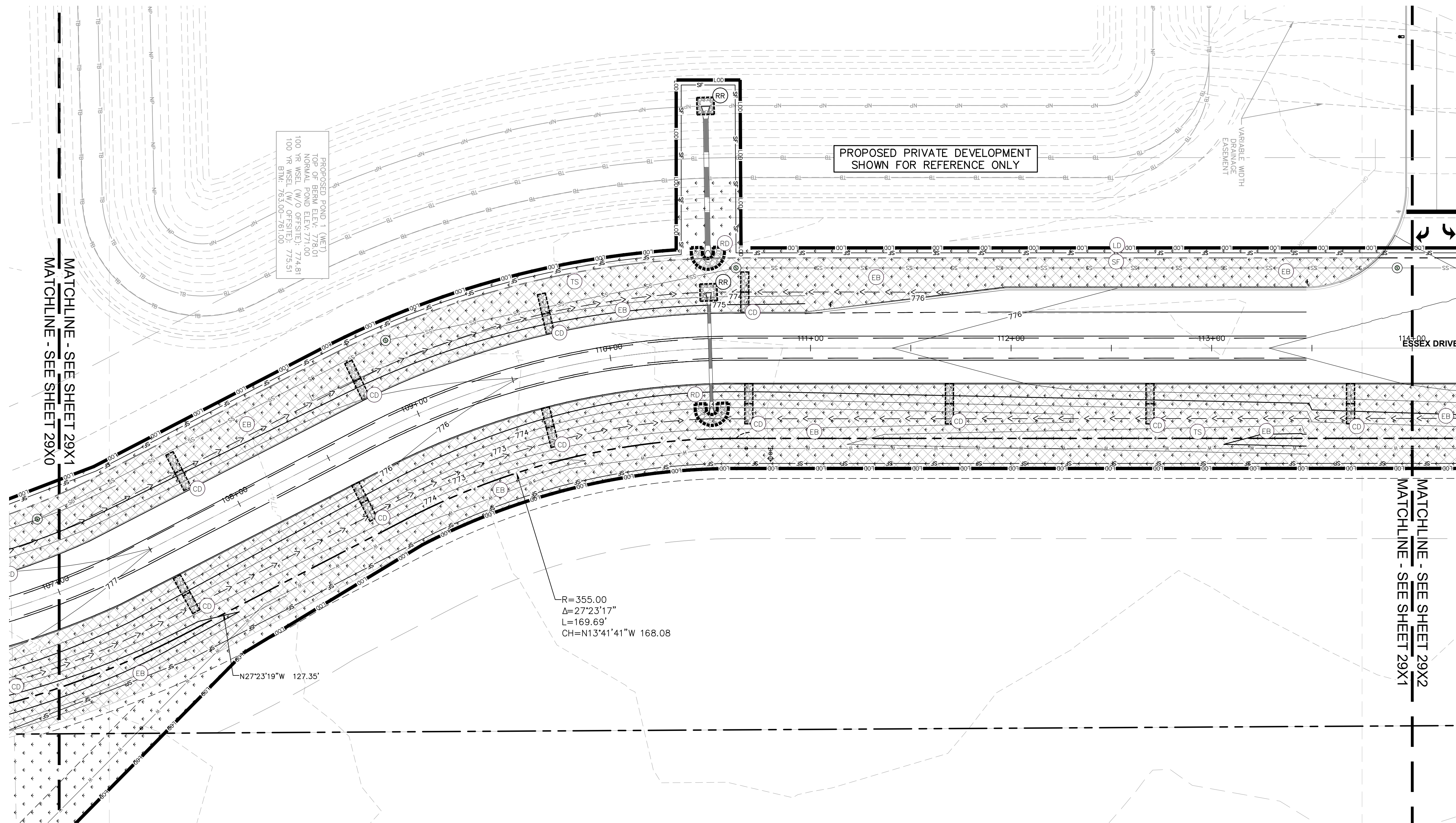
**Malarkey Roofing Products**

MALARKEY,IND FRANKLIN,IN

PHASE 2 - FINAL BUILDOUT  
 EROSION CONTROL PLAN

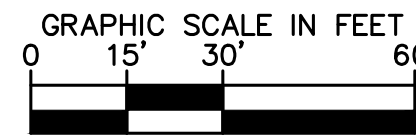
PROJ. NO. 170509000  
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 REV 0

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PROPOSED POND 1 (NET)  
 TOP OF BERM ELEV: 776.01  
 100 YR WSEL (W/O OFFSET): 774.81  
 100 YR WSEL (W/ OFFSET): 775.51  
 B.M.: 763.00-761.00

R=355.00  
 Δ=27°23'17"  
 L=169.69'  
 CH=N13°41'41"W 168.08



EROSION CONTROL LEGEND	
TS	TEMPORARY SEEDING (SEE EROSION CONTROL DETAILS)
EB	TEMPORARY EROSION CONTROL BLANKET (SEE TEMPORARY EROSION CONTROL NOTE #3)
CE	CONSTRUCTION ENTRANCE (SEE EROSION CONTROL DETAILS)
SF	SILT FENCE (SEE EROSION CONTROL DETAILS)
IP	AREA INLET PROTECTION (SEE EROSION CONTROL DETAILS)
CW	CONCRETE WASHOUT (SEE EROSION CONTROL DETAILS) (TO BE DETERMINED BY CONTRACTOR)
RR	RIP RAP (SEE EROSION CONTROL DETAILS)
RD	ROCK DONUT (SEE EROSION CONTROL DETAILS)
SS	TEMPORARY SOIL STOCKPILE
LD	LIMITS OF DISTURBANCE
CD	CHECK DAM
	EXISTING CONTOURS
	PROPOSED CONTOURS
NS	N.O.I. SIGN
SA	STAGING AREA
DD	DEBRIS DUMPSTER
PL	PORT-O-LET

**GENERAL PLAN NOTES**  
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 KHA PROJECT # 170509000



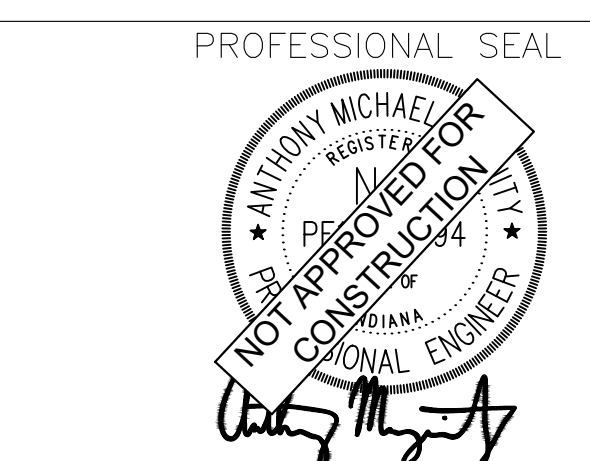
MALARKEY,IND FRANKLIN,IN

PROJ. NO.  
170509000

DWG. NO.  
2921

TITLE - PHASE 2 - FINAL BUILDOUT  
 EROSION CONTROL PLAN

SHEET  
REV 0

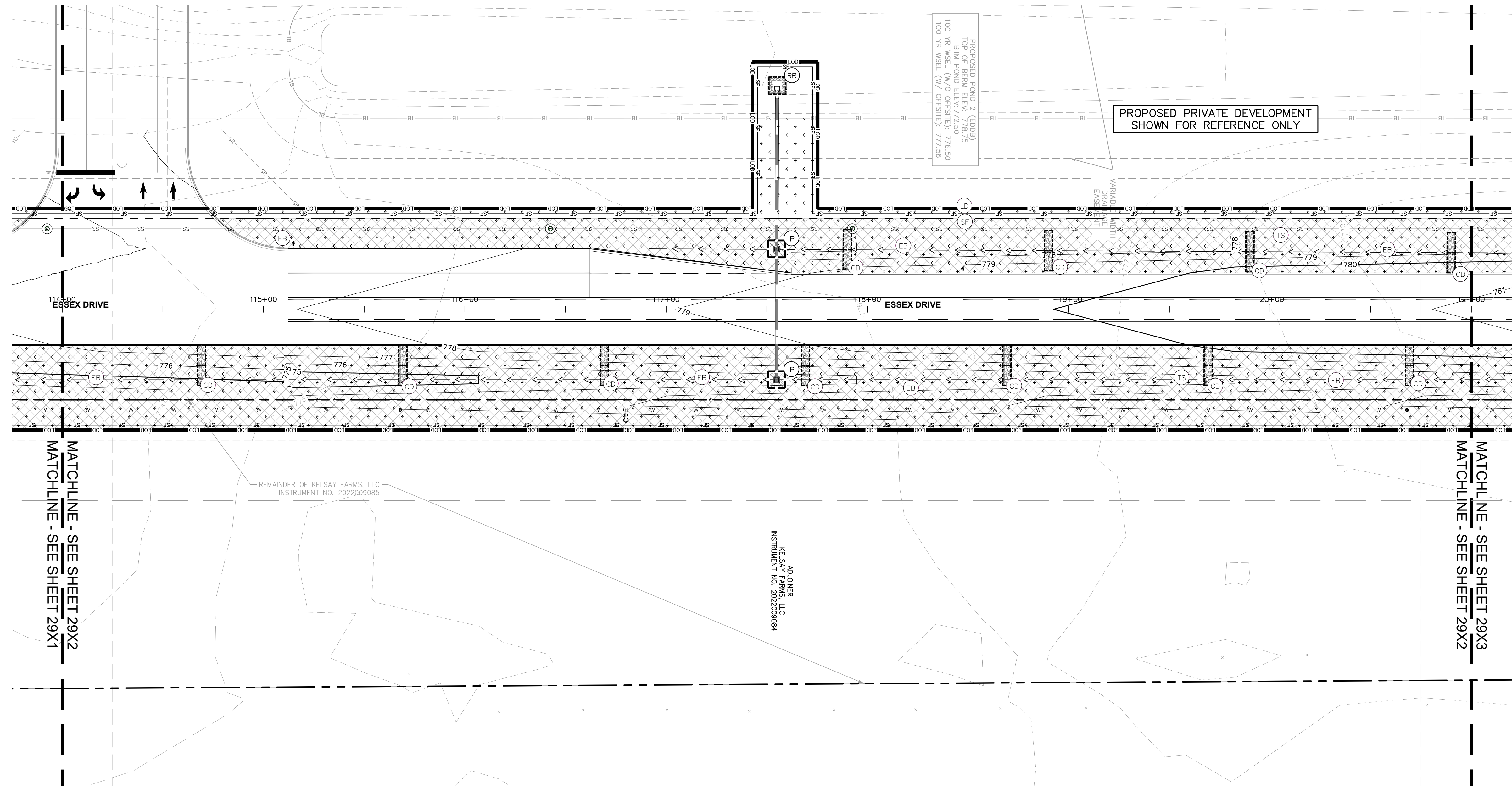


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REV	DESCRIPTION	DATE	IS.BY	REV	DESCRIPTION	DATE	IS.BY

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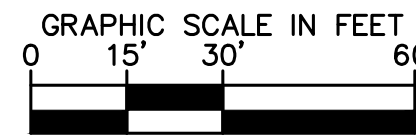
PROPOSED POND 2 (EODS)  
 TOP OF BERM ELEV: 778.75  
 100 YR WSEL (W/OFTSITE): 777.56

PROPOSED PRIVATE DEVELOPMENT  
 SHOWN FOR REFERENCE ONLY

EROSION CONTROL LEGEND	
TS	TEMPORARY SEEDING (SEE EROSION CONTROL DETAILS)
EB	TEMPORARY EROSION CONTROL BLANKET (SEE TEMPORARY EROSION CONTROL NOTE #3)
CE	CONSTRUCTION ENTRANCE (SEE EROSION CONTROL DETAILS)
SF	SILT FENCE (SEE EROSION CONTROL DETAILS)
IP	AREA INLET PROTECTION (SEE EROSION CONTROL DETAILS)
CW	CONCRETE WASHOUT (SEE EROSION CONTROL DETAILS) (TO BE DETERMINED BY CONTRACTOR)
RR	RIP RAP (SEE EROSION CONTROL DETAILS)
RD	ROCK DONUT (SEE EROSION CONTROL DETAILS)
SS	TEMPORARY SOIL STOCKPILE
LD	LIMITS OF DISTURBANCE
CD	CHECK DAM
	-620- EXISTING CONTOURS
	-620- PROPOSED CONTOURS
NS	N.O.I. SIGN
SA	STAGING AREA
DD	DEBRIS DUMPSTER
PL	PORT-O-LET

**GENERAL PLAN NOTES**  
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DWG SIZE: 36" X 24"

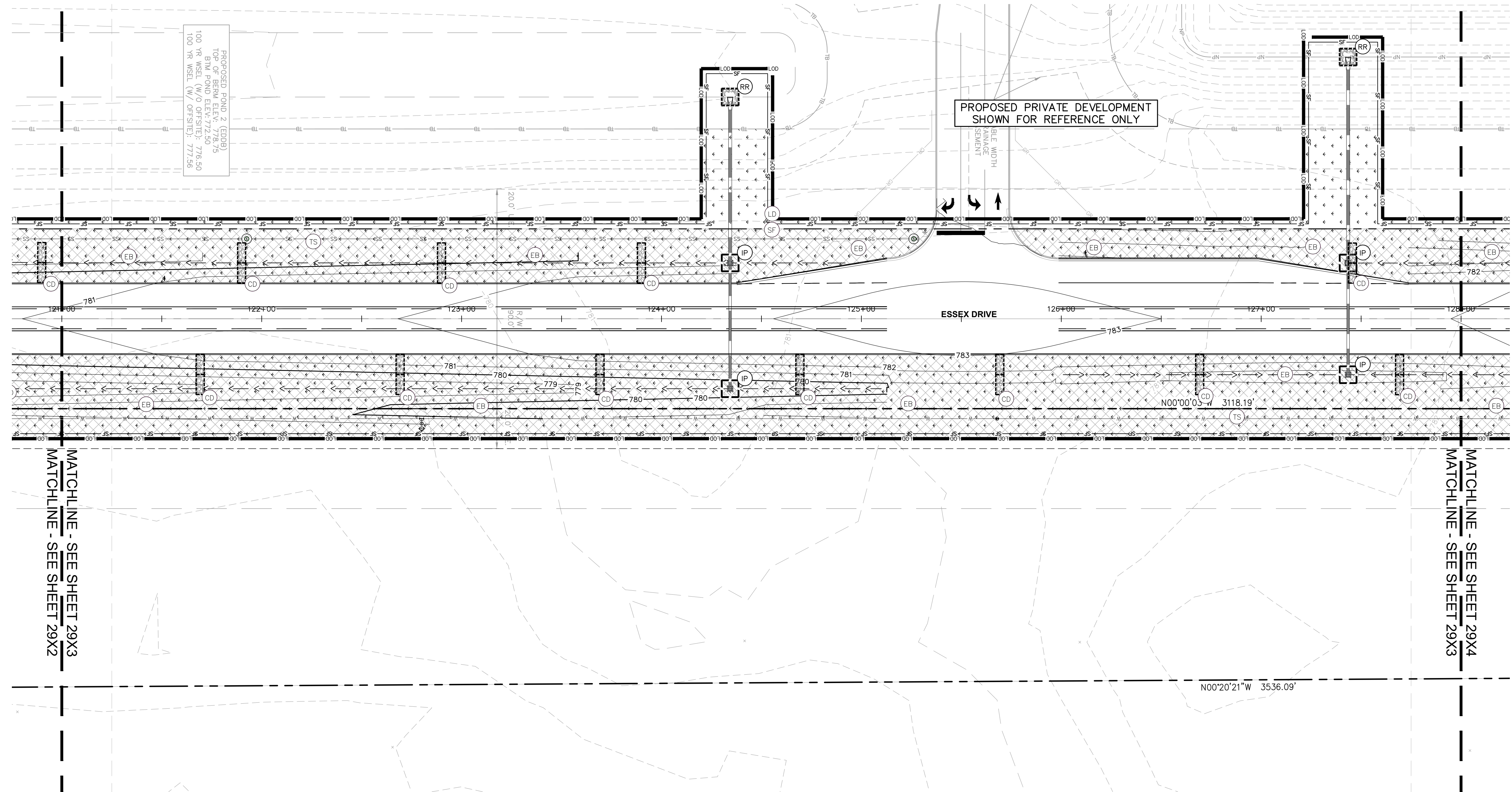
REV	DESCRIPTION	DATE	IS.BY	REV	DESCRIPTION	DATE	IS.BY

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**Malarkey Roofing Products**  
 MALARKEY,IND FRANKLIN,IN

PROJ. NO. 170509000  
 DWG. NO. 2922  
 SHEET 0  
 TITLE - PHASE 2 - FINAL BUILDOUT EROSION CONTROL PLAN

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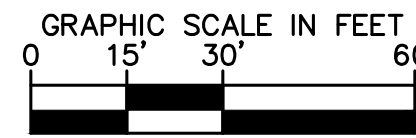
PROPOSED EROSION CONTROL MEASURES  
 100 YR WSEL (M/0 OFFSITE): 776.50  
 100 YR WSEL (M/0 OFFSITE): 777.56

PROPOSED PRIVATE DEVELOPMENT  
 SHOWN FOR REFERENCE ONLY

EROSION CONTROL LEGEND	
TS	TEMPORARY SEEDING (SEE EROSION CONTROL DETAILS)
EB	TEMPORARY EROSION CONTROL BLANKET (SEE TEMPORARY EROSION CONTROL NOTE #3)
CE	CONSTRUCTION ENTRANCE (SEE EROSION CONTROL DETAILS)
SF	SILT FENCE (SEE EROSION CONTROL DETAILS)
IP	AREA INLET PROTECTION (SEE EROSION CONTROL DETAILS)
CW	CONCRETE WASHOUT (SEE EROSION CONTROL DETAILS) (TO BE DETERMINED BY CONTRACTOR)
RR	RIP RAP (SEE EROSION CONTROL DETAILS)
RD	ROCK DONUT (SEE EROSION CONTROL DETAILS)
SS	TEMPORARY SOIL STOCKPILE
LD	LIMITS OF DISTURBANCE
CD	CHECK DAM
	620 EXISTING CONTOURS
	620 PROPOSED CONTOURS
NS	N.O.I. SIGN
SA	STAGING AREA
DD	DEBRIS DUMPSTER
PL	PORT-O-LET

MATCHLINE - SEE SHEET 29X3  
 MATCHLINE - SEE SHEET 29X2

MATCHLINE - SEE SHEET 29X4  
 MATCHLINE - SEE SHEET 29X3



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 Roofing Products®

MALARKEY,IND FRANKLIN,IN

PROJ. NO.  
170509000

DWG. NO.  
2923

TITLE - PHASE 2 - FINAL BUILDOUT  
 EROSION CONTROL PLAN

SHEET  
REV 0

PROFESSIONAL SEAL



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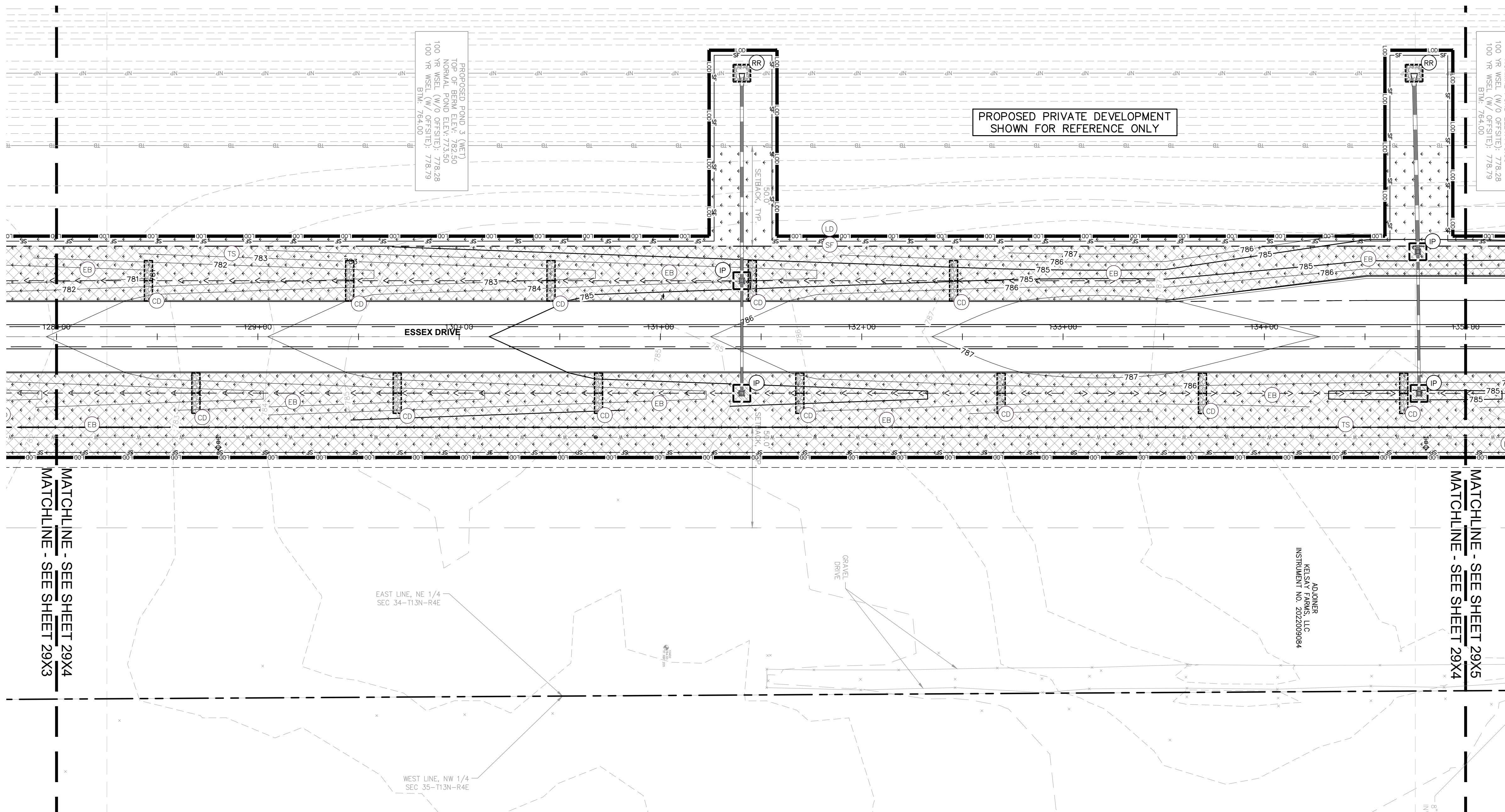
DWG SIZE: 36" X 24"

REV	DESCRIPTION	DATE	IS.BY	REV	DESCRIPTION	DATE	IS.BY

SCALE: AS NOTED  
 DRWN.: VG  
 CHKD.: AMM  
 APPD.:  
 APPD.:  
 DATE : 10/10/24

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EROSION CONTROL LEGEND	
TS	TEMPORARY SEEDING (SEE EROSION CONTROL DETAILS)
EB	TEMPORARY EROSION CONTROL BLANKET (SEE TEMPORARY EROSION CONTROL NOTE #3)
CE	CONSTRUCTION ENTRANCE (SEE EROSION CONTROL DETAILS)
SF	SILT FENCE (SEE EROSION CONTROL DETAILS)
IP	AREA INLET PROTECTION (SEE EROSION CONTROL DETAILS)
CW	CONCRETE WASHOUT (SEE EROSION CONTROL DETAILS) (TO BE DETERMINED BY CONTRACTOR)
RR	RIP RAP (SEE EROSION CONTROL DETAILS)
RD	ROCK DONUT (SEE EROSION CONTROL DETAILS)
SS	TEMPORARY SOIL STOCKPILE
LD	LIMITS OF DISTURBANCE
CD	CHECK DAM
	-620- EXISTING CONTOURS
	-620- PROPOSED CONTOURS
NS	N.O.I. SIGN
SA	STAGING AREA
DD	DEBRIS DUMPSTER
PL	PORT-O-LET

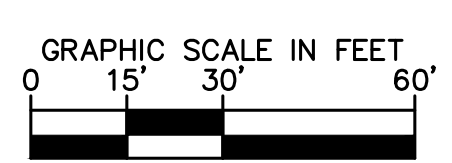
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 KHA PROJECT # 170509000



MALARKEY,IND	FRANKLIN,IN	PROJ. NO. 170509000
TITLE - PHASE 2 - FINAL BUILDOUT EROSION CONTROL PLAN		DWG. NO. 2924
SHEET	REV	0

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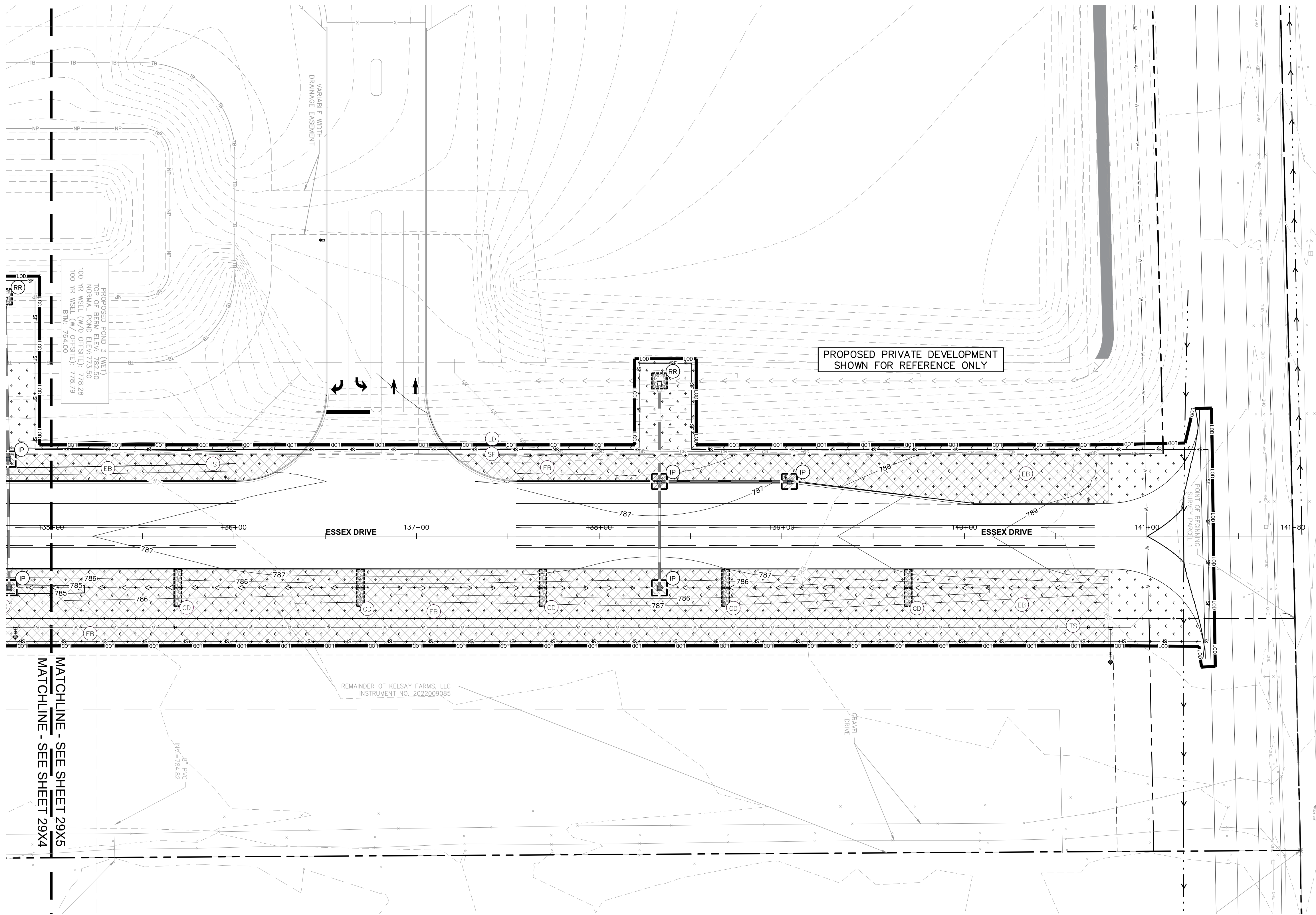
PROFESSIONAL SEAL  
 NOT APPROVED FOR CONSTRUCTION  
 ANTHONY MICHAEL REGISTERED PROFESSIONAL ENGINEER  
 PE # 170509000  
 OCT 10, 2024

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DWG SIZE: 36" X 24"

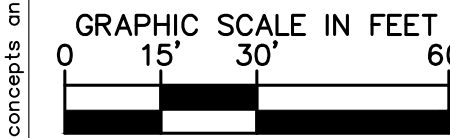
REV	DESCRIPTION	DATE	IS.BY	REV	DESCRIPTION	DATE	IS.BY

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EROSION CONTROL LEGEND	
TS	TEMPORARY SEEDING (SEE EROSION CONTROL DETAILS)
EB	TEMPORARY EROSION CONTROL BLANKET (SEE TEMPORARY EROSION CONTROL NOTE #3)
CE	CONSTRUCTION ENTRANCE (SEE EROSION CONTROL DETAILS)
SF	SILT FENCE (SEE EROSION CONTROL DETAILS)
IP	AREA INLET PROTECTION (SEE EROSION CONTROL DETAILS)
CW	CONCRETE WASHOUT (SEE EROSION CONTROL DETAILS) (TO BE DETERMINED BY CONTRACTOR)
RR	RIP RAP (SEE EROSION CONTROL DETAILS)
RD	ROCK DONUT (SEE EROSION CONTROL DETAILS)
SS	TEMPORARY SOIL STOCKPILE
LD	LIMITS OF DISTURBANCE
CD	CHECK DAM
	EXISTING CONTOURS
	PROPOSED CONTOURS
NS	N.O.I. SIGN
SA	STAGING AREA
DD	DEBRIS DUMPSTER
PL	PORT-O-LET

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DWG SIZE: 36" X 24"

REV	DESCRIPTION	DATE	IS.BY	REV	DESCRIPTION	DATE	IS.BY

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**Malarkey Roofing Products**

MALARKEY,IND FRANKLIN,IN

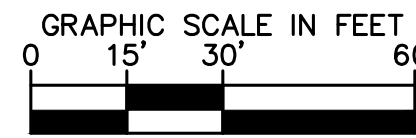
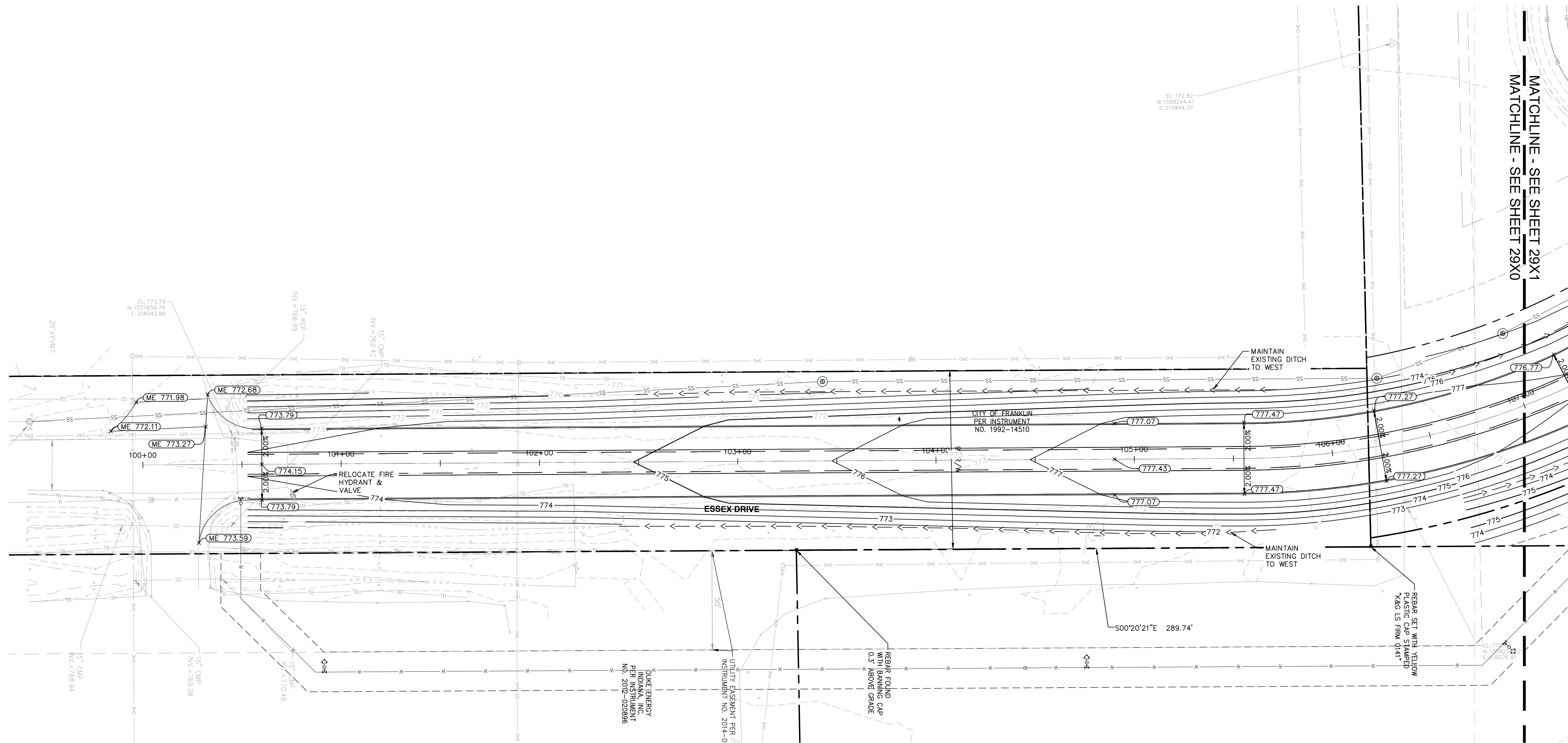
PROJ. NO. 170509000  
 DWG. NO. 2925

TITLE - PHASE 2 - FINAL BUILDOUT  
 EROSION CONTROL PLAN

SHEET 0  
 REV 0



GRADING LEGEND	
	FINISHED GRADE SPOT ELEVATION
	TOP OF CURB / BOTTOM OF CURB SPOT ELEVATION
	FLOW LINE SPOT ELEVATION
	MATCH EXISTING SPOT ELEVATION
	FINISHED FLOOR SPOT ELEVATION
	FINISHED GRADE NEAR BUILDING SPOT ELEVATION
	TOP OF WALL SPOT ELEVATION
	BOTTOM OF WALL SPOT ELEVATION
	RIM ELEVATION
	STRUCTURE ID & RIM ELEVATION
	STRUCTURE ID & INVERT ELEVATION
	PROPOSED CONTOUR
	RIDGE LINE
	SLOPE AND FLOW DIRECTION
	100-YEAR OVERLAND OVERFLOW ROUTE
	DETENTION BASIN 100-YEAR EMERGENCY
	PROPOSED SWALE
	PROPOSED STORM SEWER
	PROPOSED STORM STRUCTURES
	PROPOSED SANITARY MANHOLE
	PROPOSED STORM/SANITARY CLEANOUT
	PROPOSED WATER STRUCTURES
	PROPOSED LIGHT POLES
	PROPOSED TRANSFORMER PAD



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DWG SIZE: 36" X 24"

REV	DESCRIPTION	DATE	IS.BY	REV	DESCRIPTION	DATE	IS.BY

SCALE: AS NOTED  
 DRWN.: VG  
 CHKD.: AMM  
 APPD.:  
 APPD.:  
 DATE : 10/10/24

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**Malarkey Roofing Products**

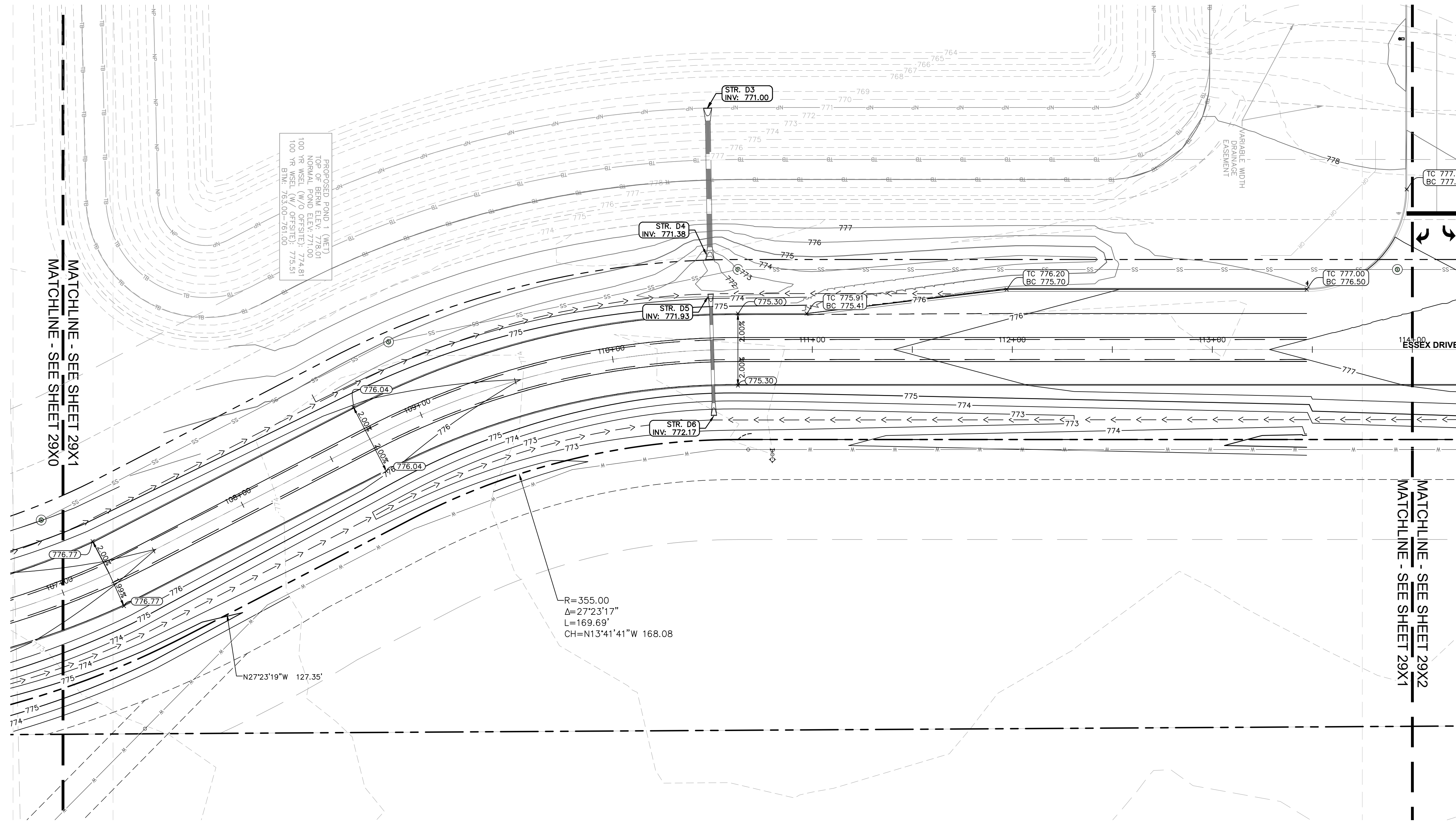
MALARKEY,IND FRANKLIN,IN

TITLE - PHASE 2 - FINAL BUILDOUT  
 GRADING AND DRAINAGE PLAN

PROJ. NO. 170509000  
 DWG. NO. 2930  
 SHEET 0  
 REV 0

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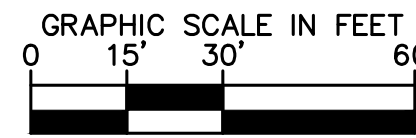


PROPOSED POND 1 (NET)  
 TOP OF BERM ELEV: 776.01  
 100 YR WSEL (W/O OFFSITE): 774.81  
 100 YR WSEL (W/ OFFSITE): 775.81  
 B.M.: 763.00-761.00

R=355.00  
 Δ=27°23'17"  
 L=169.69'  
 CH=N13°41'41"W 168.08

GRADING LEGEND	
XXX.XX	FINISHED GRADE SPOT ELEVATION
TC XXX.XX BC XXX.XX	TOP OF CURB / BOTTOM OF CURB SPOT ELEVATION
FL XXX.XX	FLOW LINE SPOT ELEVATION
ME XXX.XX	MATCH EXISTING SPOT ELEVATION
FF XXX.XX	FINISHED FLOOR SPOT ELEVATION
FG XXX.XX	FINISHED GRADE NEAR BUILDING SPOT ELEVATION
TW XXX.XX	TOP OF WALL SPOT ELEVATION
BW XXX.XX	BOTTOM OF WALL SPOT ELEVATION
R XXX.XX	RIM ELEVATION
STR XX R XXX.XX	STRUCTURE ID & RIM ELEVATION
STR XX INV XXX.XX	STRUCTURE ID & INVERT ELEVATION
620	PROPOSED CONTOUR
---	RIDGE LINE
XXX	SLOPE AND FLOW DIRECTION
←	100-YEAR OVERLAND OVERFLOW ROUTE
↻	DETENTION BASIN 100-YEAR EMERGENCY
←	PROPOSED SWALE
⊙	PROPOSED STORM SEWER
⊙	PROPOSED STORM STRUCTURES
⊙	PROPOSED SANITARY MANHOLE
⊙	PROPOSED STORM/SANITARY CLEANOUT
⊙	PROPOSED WATER STRUCTURES
⊙	PROPOSED LIGHT POLES
⊙	PROPOSED TRANSFORMER PAD

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DWG SIZE: 36" X 24"

REV	DESCRIPTION	DATE	IS.BY	REV	DESCRIPTION	DATE	IS.BY

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 KHA PROJECT # 170509000

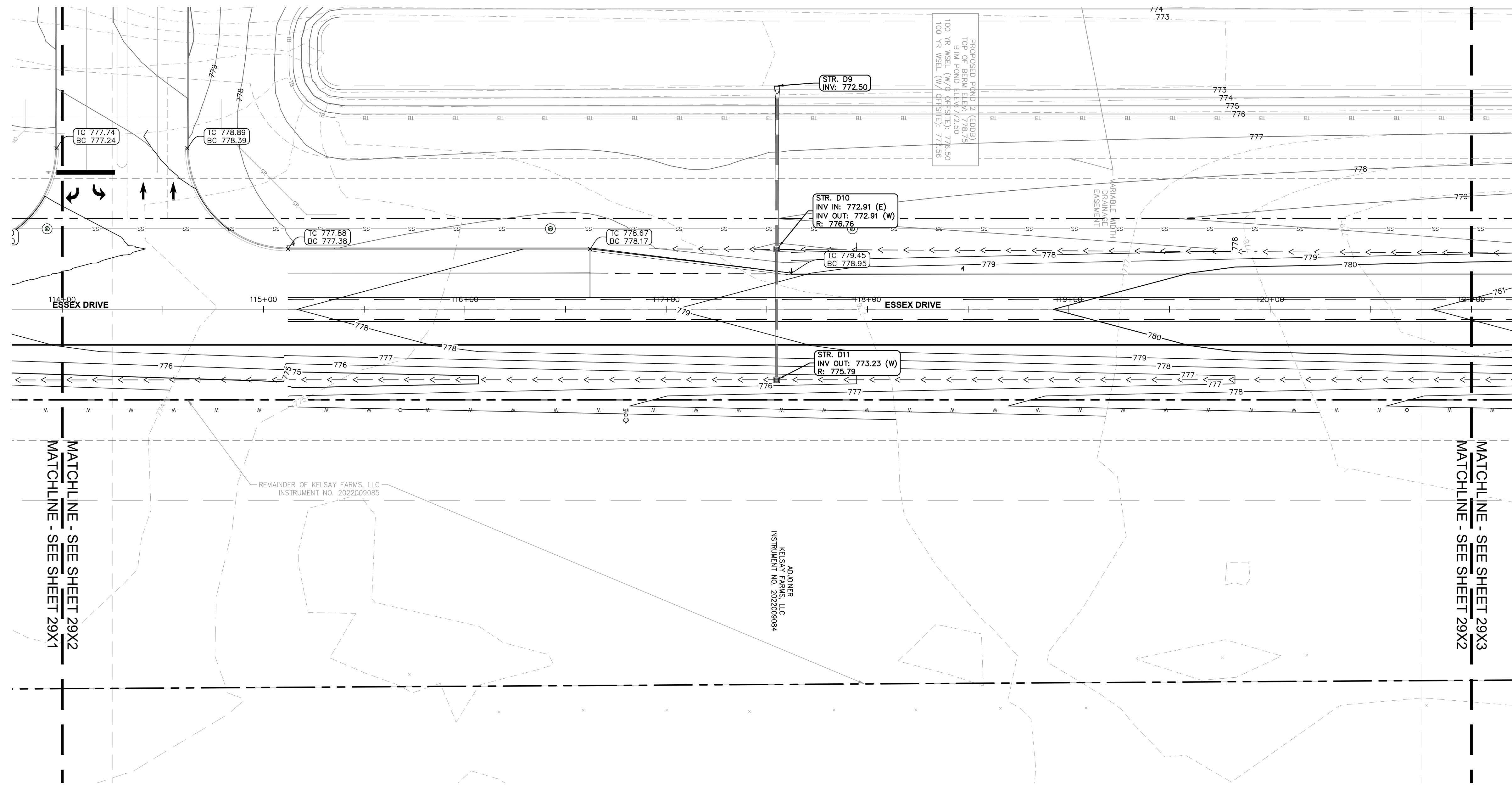
**Malarkey Roofing Products**

MALARKEY,IND FRANKLIN,IN

PROJ. NO. 170509000  
 DWG. NO. 2931  
 SHEET 0  
 REV 0

TITLE - PHASE 2 - FINAL BUILDOUT  
 GRADING AND DRAINAGE PLAN

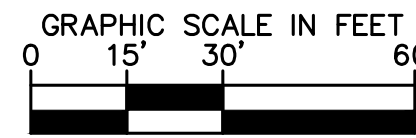
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GRADING LEGEND	
XXX.XX	FINISHED GRADE SPOT ELEVATION
TC XXX.XX BC XXX.XX	TOP OF CURB / BOTTOM OF CURB SPOT ELEVATION
FL XXX.XX	FLOW LINE SPOT ELEVATION
ME XXX.XX	MATCH EXISTING SPOT ELEVATION
FF XXX.XX	FINISHED FLOOR SPOT ELEVATION
FG XXX.XX	FINISHED GRADE NEAR BUILDING SPOT ELEVATION
TW XXX.XX	TOP OF WALL SPOT ELEVATION
BW XXX.XX	BOTTOM OF WALL SPOT ELEVATION
R XXX.XX	RIM ELEVATION
STR XX R XXX.XX	STRUCTURE ID & RIM ELEVATION
STR XX INV XXX.XX	STRUCTURE ID & INVERT ELEVATION
620	PROPOSED CONTOUR
---	RIDGE LINE
X.XX%	SLOPE AND FLOW DIRECTION
←	100-YEAR OVERLAND OVERFLOW ROUTE
↻	DETENTION BASIN 100-YEAR EMERGENCY
---	PROPOSED SWALE
---	PROPOSED STORM SEWER
---	PROPOSED STORM STRUCTURES
---	PROPOSED SANITARY MANHOLE
---	PROPOSED STORM/SANITARY CLEANOUT
---	PROPOSED WATER STRUCTURES
---	PROPOSED LIGHT POLES
---	PROPOSED TRANSFORMER PAD

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DWG SIZE: 36" X 24"

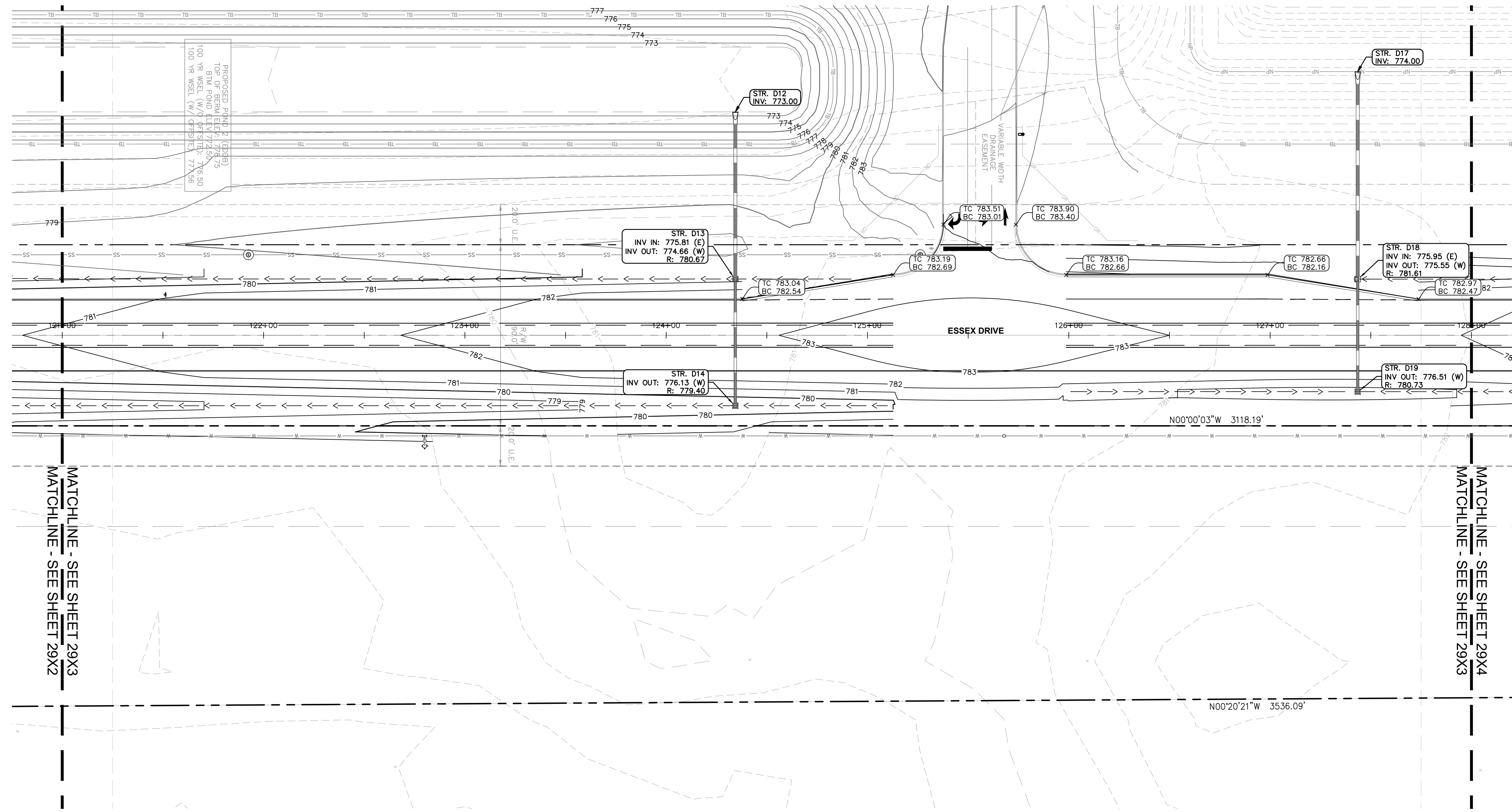
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**Malarkey Roofing Products**  
 MALARKEY,IND FRANKLIN,IN

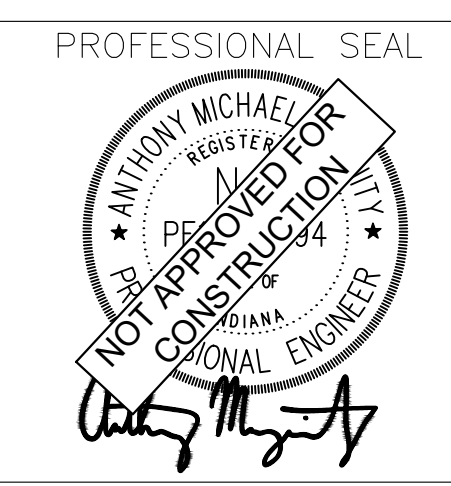
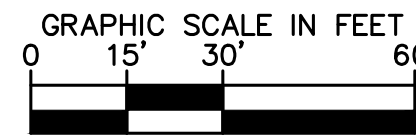
PROJ. NO. 170509000  
 DWG. NO. 2932  
 SHEET 0  
 TITLE - PHASE 2 - FINAL BUILDOUT GRADING AND DRAINAGE PLAN

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GRADING LEGEND	
XXX.XX	FINISHED GRADE SPOT ELEVATION
TC XXX.XX BC XXX.XX	TOP OF CURB / BOTTOM OF CURB SPOT ELEVATION
FL XXX.XX	FLOW LINE SPOT ELEVATION
ME XXX.XX	MATCH EXISTING SPOT ELEVATION
FF XXX.XX	FINISHED FLOOR SPOT ELEVATION
FG XXX.XX	FINISHED GRADE NEAR BUILDING SPOT ELEVATION
TW XXX.XX	TOP OF WALL SPOT ELEVATION
BW XXX.XX	BOTTOM OF WALL SPOT ELEVATION
R XXX.XX	RIM ELEVATION
STR XX R XXX.XX	STRUCTURE ID & RIM ELEVATION
STR XX INV XXX.XX	STRUCTURE ID & INVERT ELEVATION
620	PROPOSED CONTOUR
---	RIDGE LINE
X.XX%	SLOPE AND FLOW DIRECTION
←	100-YEAR OVERLAND OVERFLOW ROUTE
↻	DETENTION BASIN 100-YEAR EMERGENCY
←	PROPOSED SWALE
—	PROPOSED STORM SEWER
○	PROPOSED STORM STRUCTURES
○	PROPOSED SANITARY MANHOLE
○	PROPOSED STORM/SANITARY CLEANOUT
○	PROPOSED WATER STRUCTURES
○	PROPOSED LIGHT POLES
□	PROPOSED TRANSFORMER PAD

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DWG SIZE: 36" X 24"

REV	DESCRIPTION	DATE	IS.BY	REV	DESCRIPTION	DATE	IS.BY

SCALE: AS NOTED  
 DRWN.: VG  
 CHKD.: AMM  
 APPD.:  
 APPD.:  
 DATE : 10/10/24

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 KHA PROJECT # 170509000

**Malarkey Roofing Products**

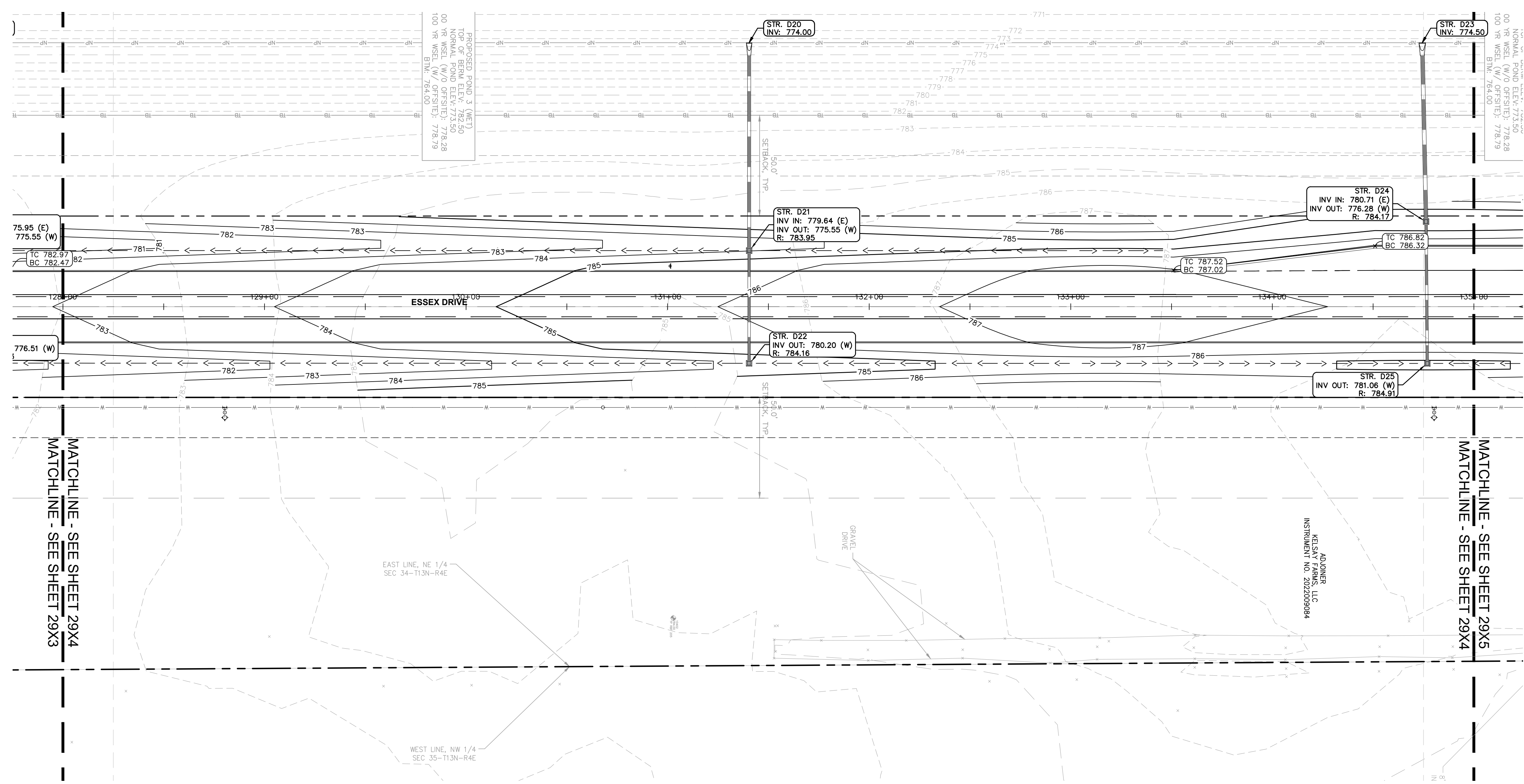
MALARKEY,IND FRANKLIN,IN

PROJ. NO.	170509000
DWG. NO.	2933
SHEET	0
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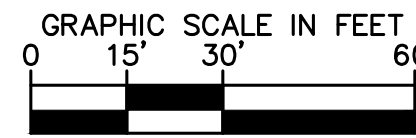
TITLE - PHASE 2 - FINAL BUILDOUT  
 GRADING AND DRAINAGE PLAN



GRADING LEGEND	
XXX.XX	FINISHED GRADE SPOT ELEVATION
TC XXX.XX BC XXX.XX	TOP OF CURB / BOTTOM OF CURB SPOT ELEVATION
FL XXX.XX	FLOW LINE SPOT ELEVATION
ME XXX.XX	MATCH EXISTING SPOT ELEVATION
FF XXX.XX	FINISHED FLOOR SPOT ELEVATION
FG XXX.XX	FINISHED GRADE NEAR BUILDING SPOT ELEVATION
TW XXX.XX	TOP OF WALL SPOT ELEVATION
BW XXX.XX	BOTTOM OF WALL SPOT ELEVATION
R XXX.XX	RIM ELEVATION
STR XX R XXX.XX	STRUCTURE ID & RIM ELEVATION
STR XX INV XXX.XX	STRUCTURE ID & INVERT ELEVATION
620	PROPOSED CONTOUR
---	RIDGE LINE
X.XX%	SLOPE AND FLOW DIRECTION
→	100-YEAR OVERLAND OVERFLOW ROUTE
↻	DETENTION BASIN 100-YEAR EMERGENCY
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DWG SIZE: 36" X 24"

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DATE : 10/10/24

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**Malarkey Roofing Products**

MALARKEY,IND FRANKLIN,IN

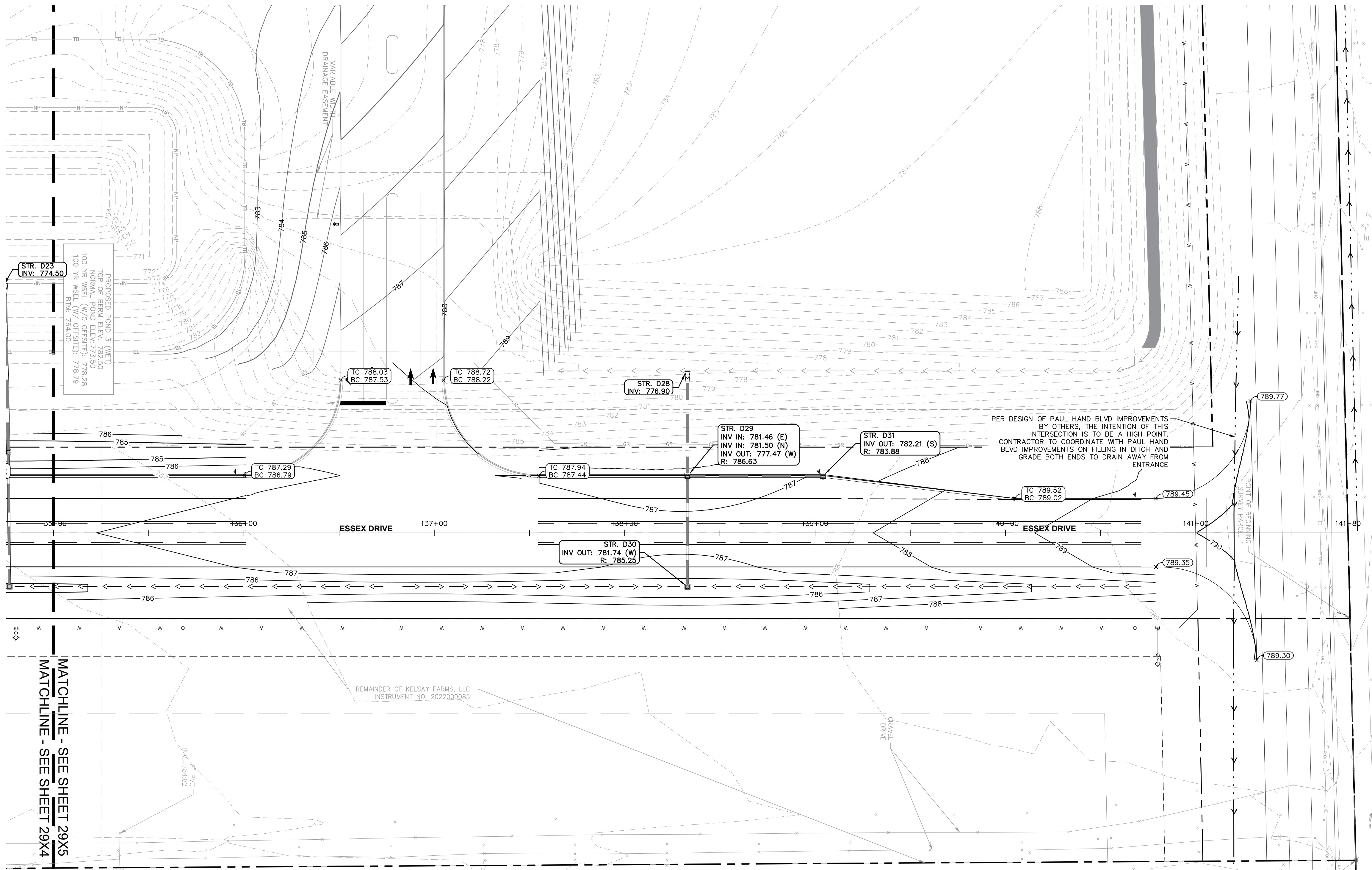
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TITLE - PHASE 2 - FINAL BUILDOUT  
GRADING AND DRAINAGE PLAN



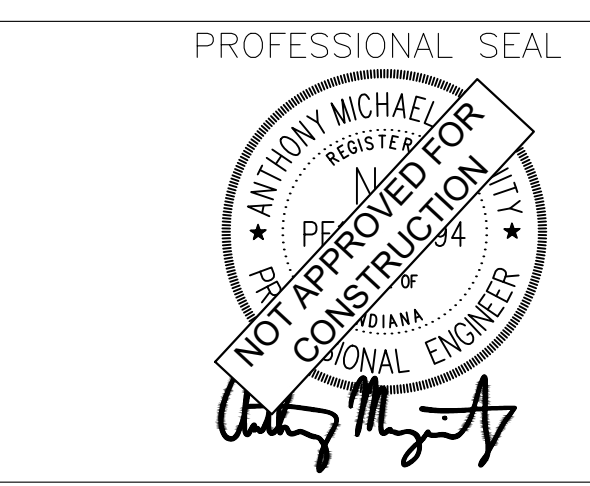
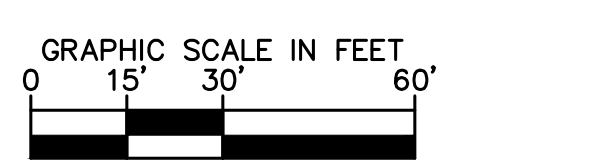
GRADING LEGEND	
	FINISHED GRADE SPOT ELEVATION
	TOP OF CURB / BOTTOM OF CURB SPOT ELEVATION
	FLOW LINE SPOT ELEVATION
	MATCH EXISTING SPOT ELEVATION
	FINISHED FLOOR SPOT ELEVATION
	FINISHED GRADE NEAR BUILDING SPOT ELEVATION
	TOP OF WALL SPOT ELEVATION
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**Malarkey Roofing Products**  
 MALARKEY,IND FRANKLIN,IN  
 PROJ. NO. 170509000  
 DWG. NO. 2935  
 SHEET 0  
 TITLE - PHASE 2 - FINAL BUILDOUT GRADING AND DRAINAGE PLAN

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### LEGEND

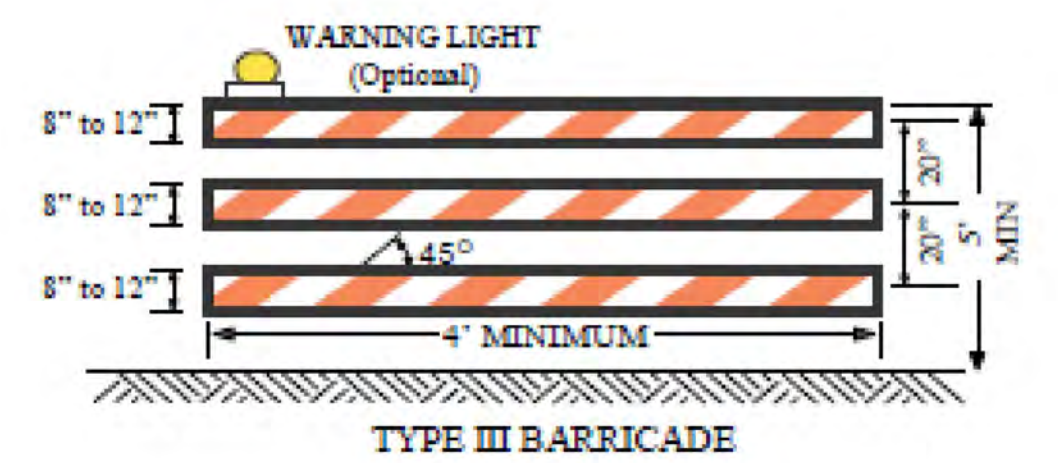
- WORK ZONE
- TRAFFIC FLOW
- TRAFFIC SPACE
- BARRIER
- CONSTRUCTION SIGN

### GENERAL NOTES

- ALL WORK SHALL COMPLY WITH THE 2011 INDIANA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES INCLUDING REVISIONS 1, 2, AND 3.
- ALL AREAS EXCAVATED BELOW THE EXISTING PAVEMENT SURFACE AND WITHIN THE CLEAR ZONE AT THE CONCLUSION OF EACH WORKDAY, SHALL BE BACKFILLED TO FORM AN APPROXIMATE 6:1 WEDGE AGAINST THE EXISTING PAVEMENT OR NEWLY CONSTRUCTION PAVEMENT SURFACE FOR THE SAFETY AND PROTECTION OF VEHICULAR TRAFFIC.
- CHANNELIZING DEVICE SPACING SHALL BE AS FOLLOWS:  
TRAVELWAY SPACING = 90'  
TRANSITION SPACING = 45'

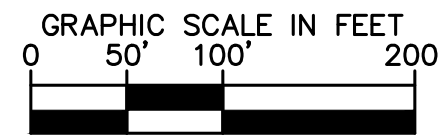
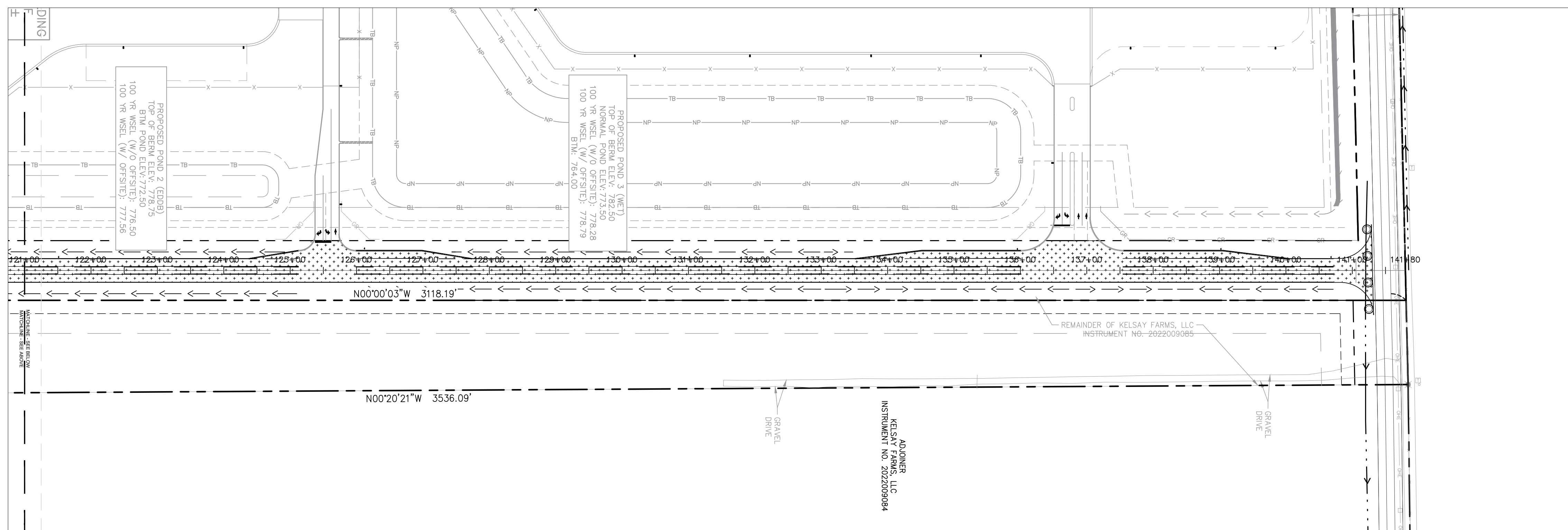
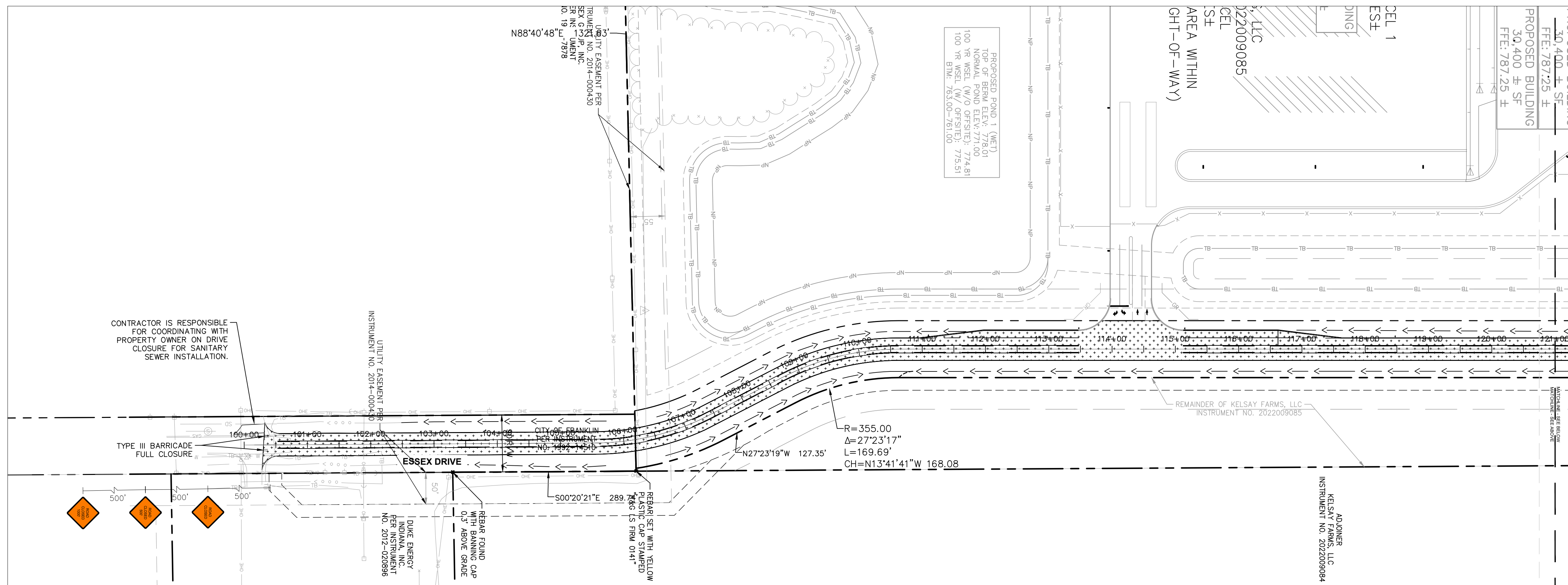
### SEQUENCE OF CONSTRUCTION

- CONTRACTOR TO INSTALL ALL EROSION AND SEDIMENT CONTROL DEVICES PER THE GRADING & DRAINAGE PLANS (SHEETS 2930-2935).
- AFTER STEP 1, INSTALL TEMPORARY TRAFFIC CONTROL DEVICES AS REQUIRED AND GENERALLY AS SHOWN ON THIS PLAN.
- WORK ACTIVITIES DURING ESSEX DRIVE IMPROVEMENTS CONSIST OF INSTALLATION OF DRAINAGE FEATURES, GRADING, PREPARATION OF PAVEMENT SUBGRADE, PAVING, AND TOPSOIL & SEED DISTURBED AREAS.
- AFTER COMPLETION ESSEX DRIVE IMPROVEMENTS, REMOVE BARRIERS.



Notes:

- Stripes on barricade rails slope downward at an angle of 45 degrees toward the direction traffic is to pass.
- Barricade rail stripe widths shall be 6 inches except where rail lengths are less than 36 inches, then 4 inch wide stripes may be used.
- The sides of barricades facing traffic shall have retroreflective rail faces.
- All channelizing devices shall meet AASHTO Manual for Assessing Safety Hardware (MASH) Requirements.



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DWG SIZE: 36" X 24"

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DRWN.: VG

CHKD.: AMM

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APPD.:

DATE : 10/10/24

Cooper & Associates, LLC

Engineers - Project Managers

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PROJ. NO. 170509000

DWG. NO. 2936

MALARKEY,IND FRANKLIN,IN

TITLE- PHASE 2 - FINAL BUILDOUT  
MAINTENANCE OF TRAFFIC PLAN

SHEET 0

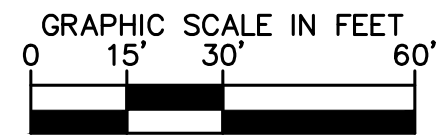
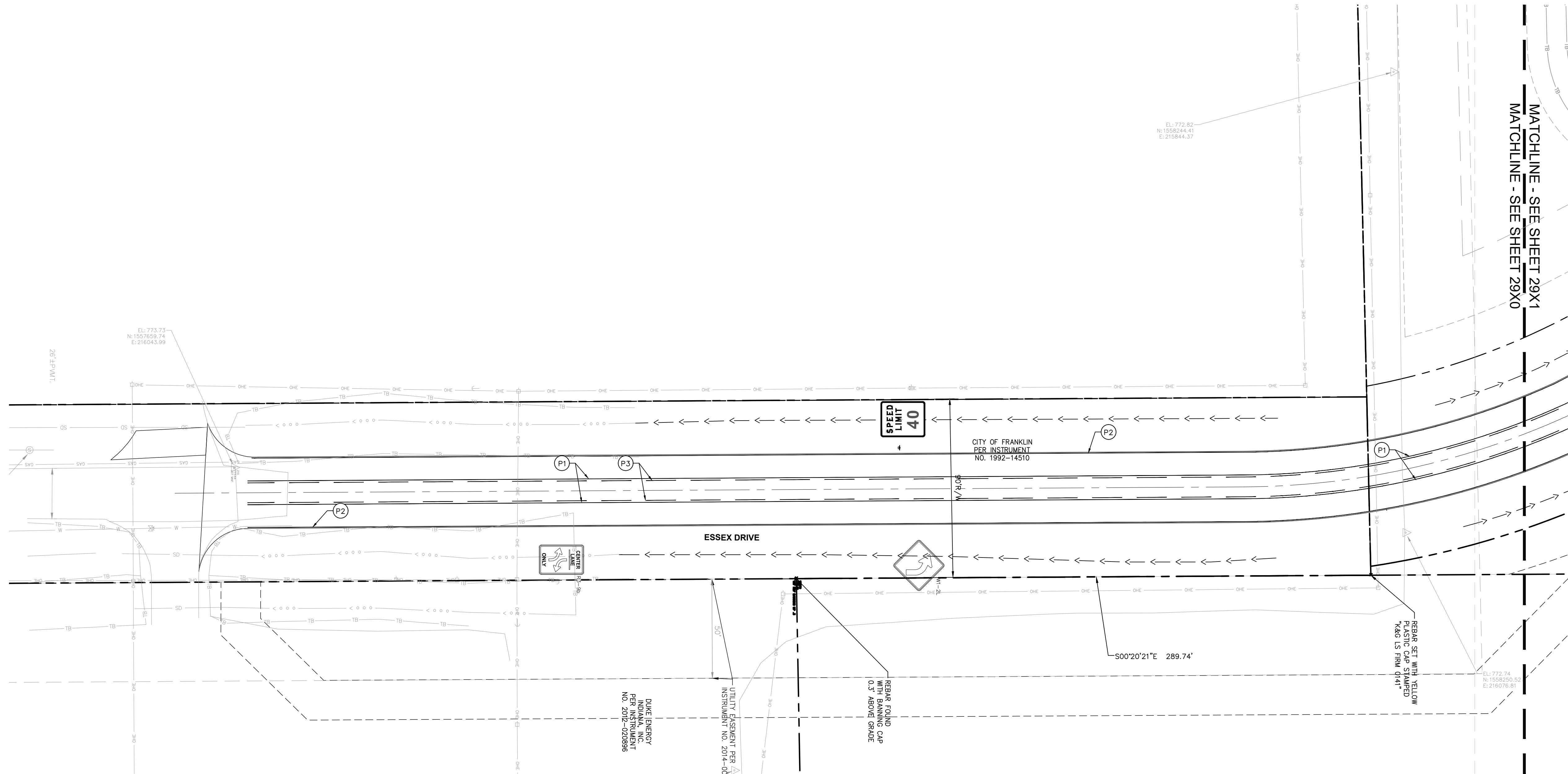
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**STRIPING KEYNOTES**

- (P1) LINE, THERMOPLASTIC, SOLID, YELLOW, 4 INCH
- (P2) LINE, THERMOPLASTIC, SOLID, WHITE, 4 INCH
- (P3) LINE, THERMOPLASTIC, SKIPPED, YELLOW, 4 INCH
- (P4) ARROW, THERMOPLASTIC, YELLOW
- (P5) LINE, THERMOPLASTIC, SKIPPED, WHITE, 4 INCH



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DWG SIZE: 36" X 24"

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 KHA PROJECT # 170509000

**Malarkey Roofing Products**

MALARKEY,IND FRANKLIN,IN

PHASE 2 - FINAL BUILDOUT  
 SIGNING AND MARKING PLAN

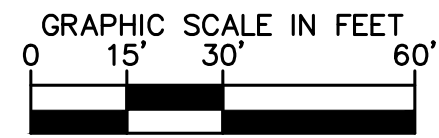
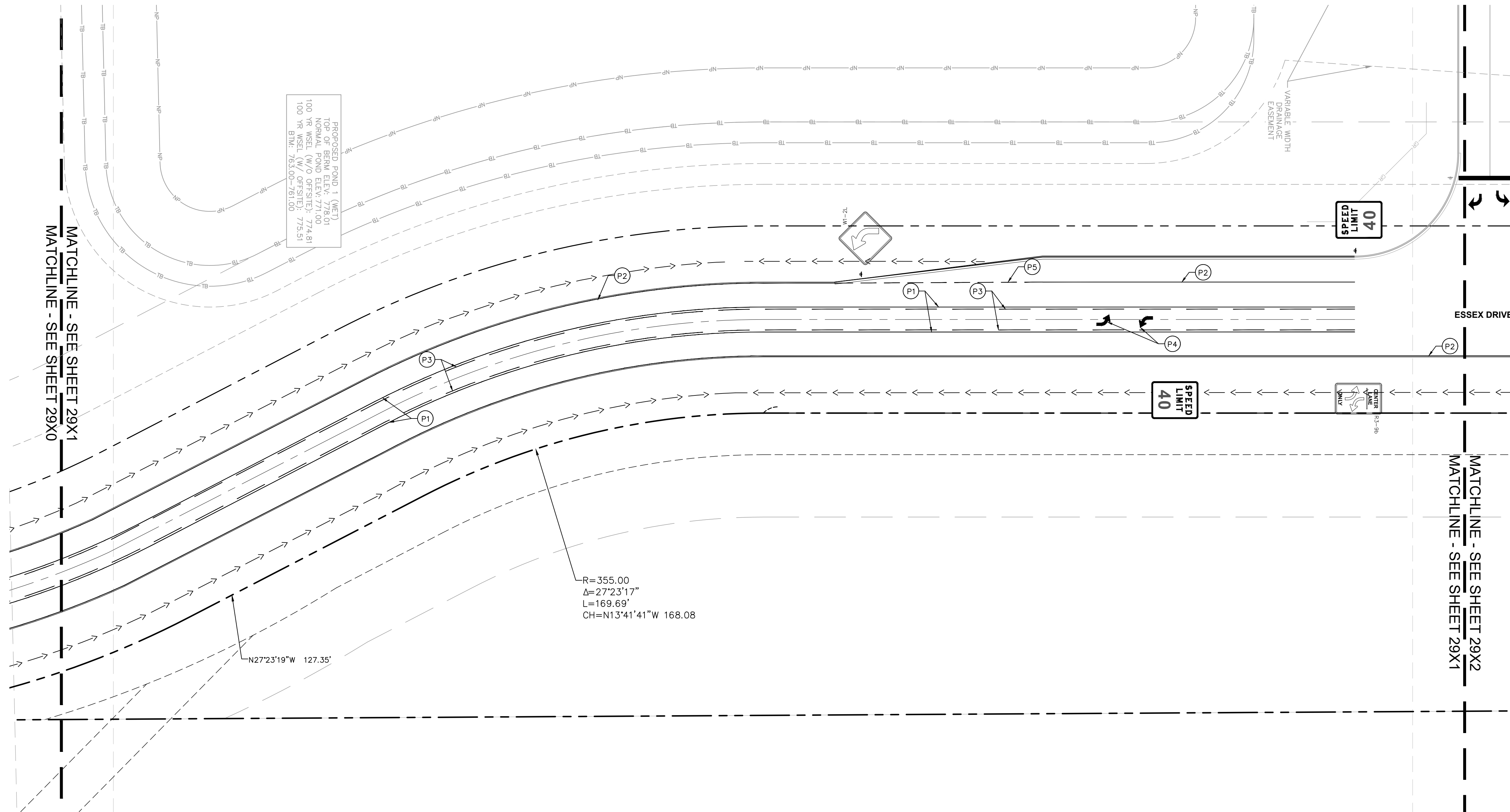
PROJ. NO.	170509000
DWG. NO.	2940
SHEET	0
REV	0

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**STRIPING KEYNOTES**

- (P1) LINE, THERMOPLASTIC, SOLID, YELLOW, 4 INCH
- (P2) LINE, THERMOPLASTIC, SOLID, WHITE, 4 INCH
- (P3) LINE, THERMOPLASTIC, SKIPPED, YELLOW, 4 INCH
- (P4) ARROW, THERMOPLASTIC, YELLOW
- (P5) LINE, THERMOPLASTIC, SKIPPED, WHITE, 4 INCH



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**Malarkey Roofing Products**

MALARKEY,IND FRANKLIN,IN

PROJ. NO. 170509000

DWG. NO. 2941

PHASE 2 - FINAL BUILDOUT  
 SIGNING AND MARKING PLAN

SHEET 0

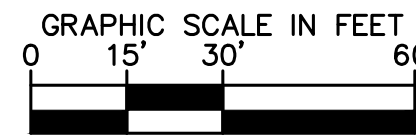
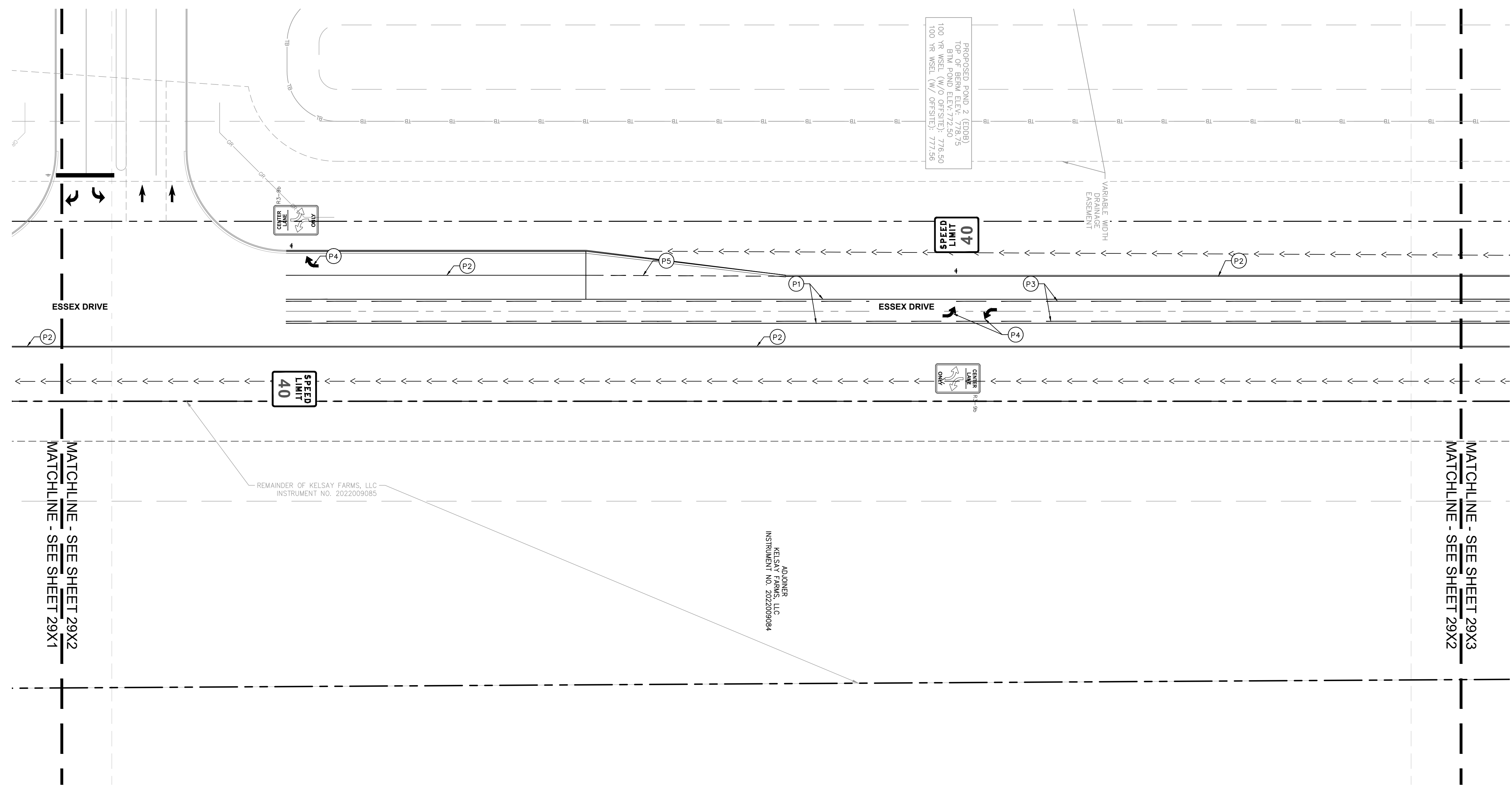
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STRIPING KEYNOTES	
P1	LINE, THERMOPLASTIC, SOLID, YELLOW, 4 INCH
P2	LINE, THERMOPLASTIC, SOLID, WHITE, 4 INCH
P3	LINE, THERMOPLASTIC, SKIPPED, YELLOW, 4 INCH
P4	ARROW, THERMOPLASTIC, YELLOW
P5	LINE, THERMOPLASTIC, SKIPPED, WHITE, 4 INCH



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DWG SIZE: 36" X 24"

REV	DESCRIPTION	DATE	IS.BY	REV	DESCRIPTION	DATE	IS.BY

SCALE: AS NOTED

DRWN.: VG  
CHKD.: AMM  
APPD.:  
APPD.:  
DATE : 10/10/24

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KHA PROJECT # 170509000

MALARKEY,IND FRANKLIN,IN

PHASE 2 - FINAL BUILDOUT  
SIGNING AND MARKING PLAN

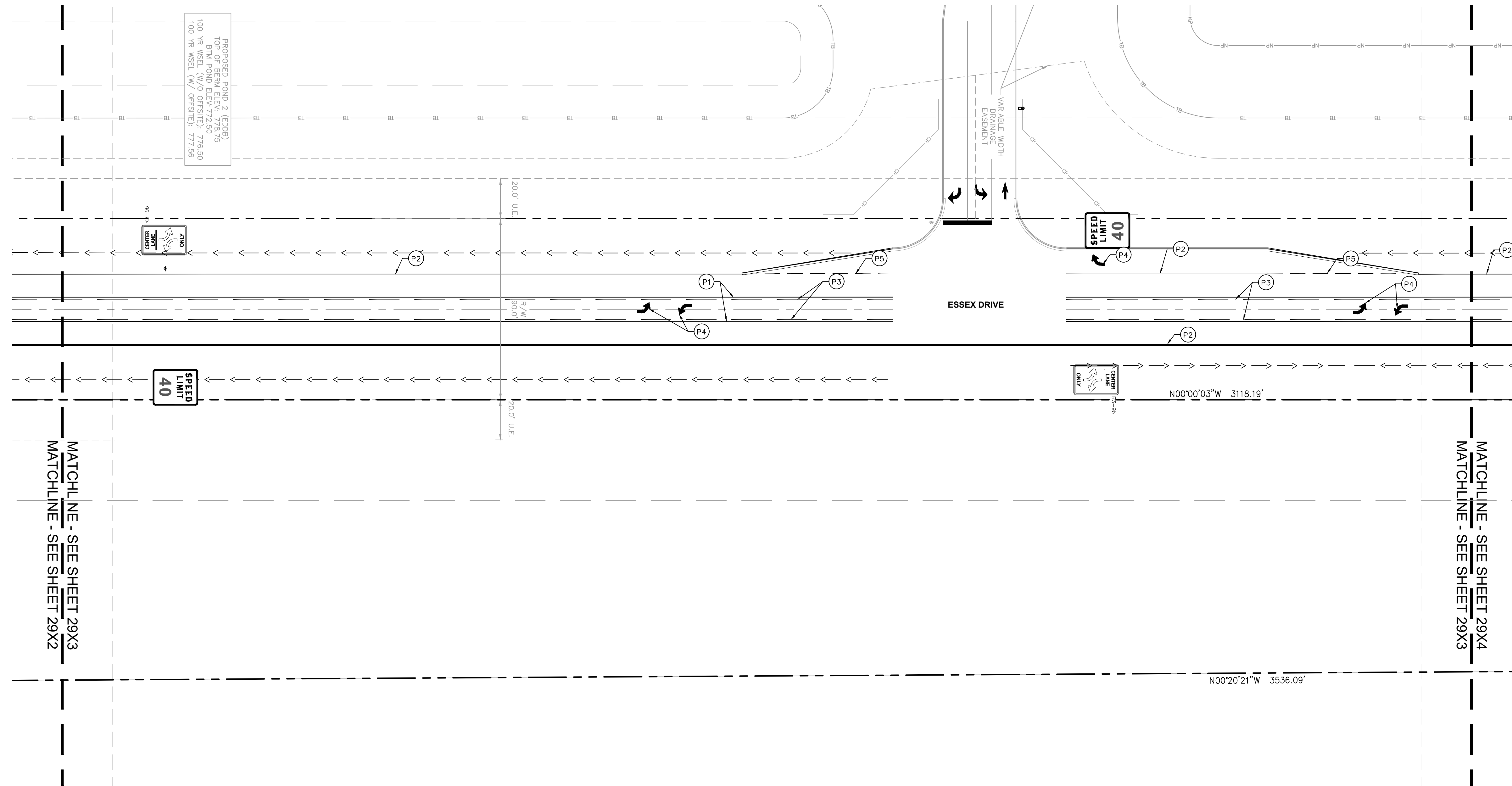
PROJ. NO.	170509000
DWG. NO.	2942
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REV	0

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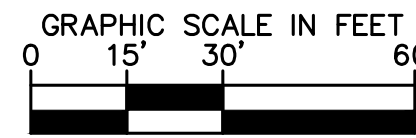


**STRIPING KEYNOTES**

- (P1) LINE, THERMOPLASTIC, SOLID, YELLOW, 4 INCH
- (P2) LINE, THERMOPLASTIC, SOLID, WHITE, 4 INCH
- (P3) LINE, THERMOPLASTIC, SKIPPED, YELLOW, 4 INCH
- (P4) ARROW, THERMOPLASTIC, YELLOW
- (P5) LINE, THERMOPLASTIC, SKIPPED, WHITE, 4 INCH



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DWG SIZE: 36" X 24"

REV	DESCRIPTION	DATE	IS.BY	REV	DESCRIPTION	DATE	IS.BY

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SCALE: AS NOTED  
 DRWN.: VG  
 CHKD.: AMM  
 APPD.:  
 APPD.:  
 DATE : 10/10/24

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**Malarkey Roofing Products**

MALARKEY,IND FRANKLIN,IN

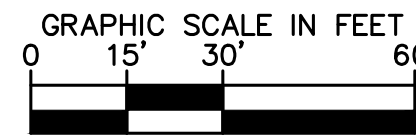
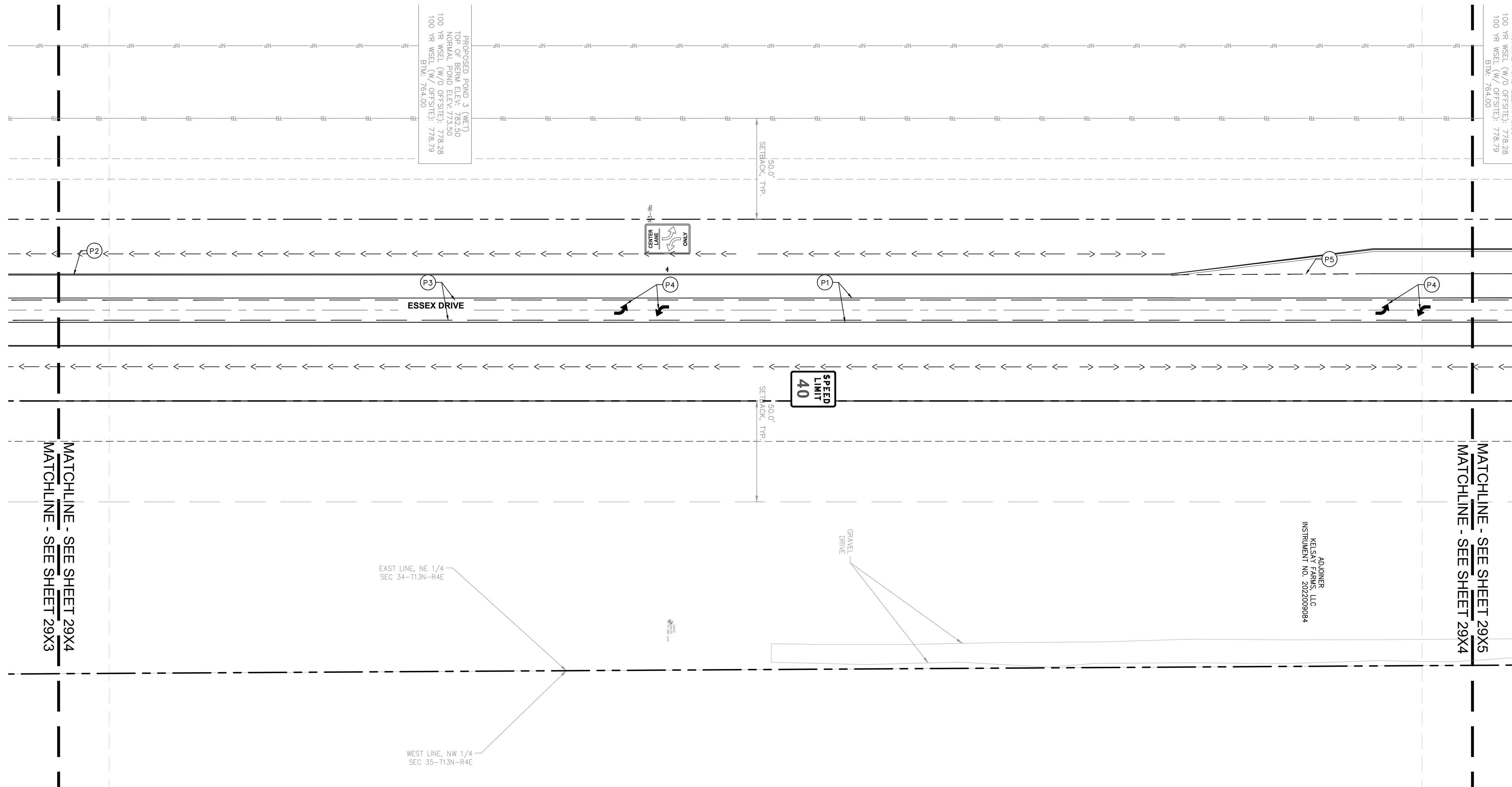
PHASE 2 - FINAL BUILDOUT  
 SIGNING AND MARKING PLAN

PROJ. NO.	170509000
DWG. NO.	2943
SHEET	0
REV	0



**STRIPING KEYNOTES**

- (P1) LINE, THERMOPLASTIC, SOLID, YELLOW, 4 INCH
- (P2) LINE, THERMOPLASTIC, SOLID, WHITE, 4 INCH
- (P3) LINE, THERMOPLASTIC, SKIPPED, YELLOW, 4 INCH
- (P4) ARROW, THERMOPLASTIC, YELLOW
- (P5) LINE, THERMOPLASTIC, SKIPPED, WHITE, 4 INCH



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DWG SIZE: 36" X 24"

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**Malarkey Roofing Products**

MALARKEY,IND FRANKLIN,IN

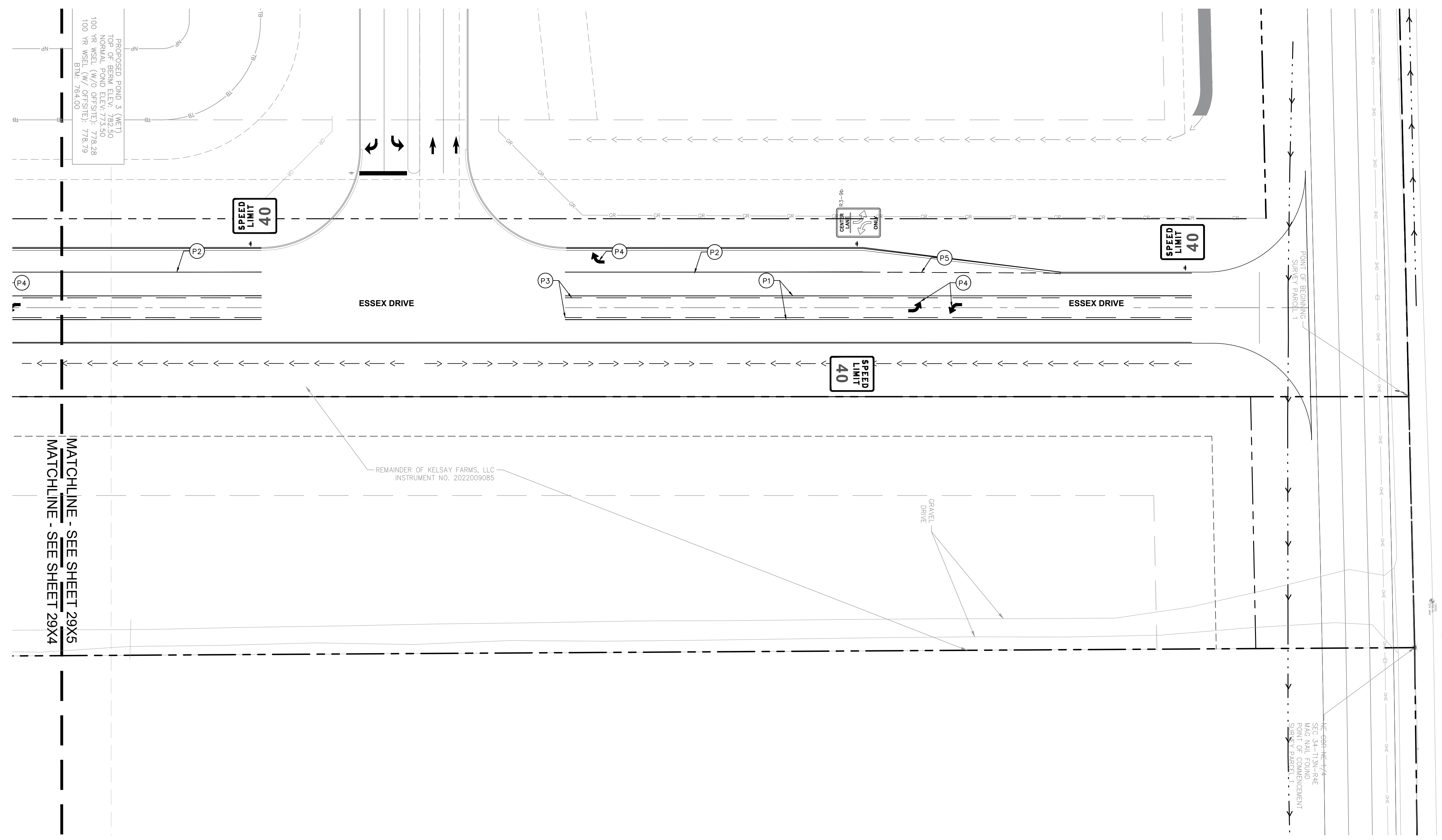
PHASE 2 - FINAL BUILDOUT  
SIGNING AND MARKING PLAN

PROJ. NO.	170509000
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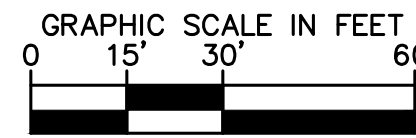
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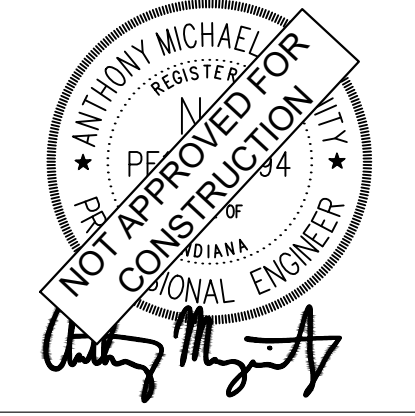
STRIPING KEYNOTES	
P1	LINE, THERMOPLASTIC, SOLID, YELLOW, 4 INCH
P2	LINE, THERMOPLASTIC, SOLID, WHITE, 4 INCH
P3	LINE, THERMOPLASTIC, SKIPPED, YELLOW, 4 INCH
P4	ARROW, THERMOPLASTIC, YELLOW
P5	LINE, THERMOPLASTIC, SKIPPED, WHITE, 4 INCH



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**Malarkey Roofing Products**

MALARKEY,IND FRANKLIN,IN

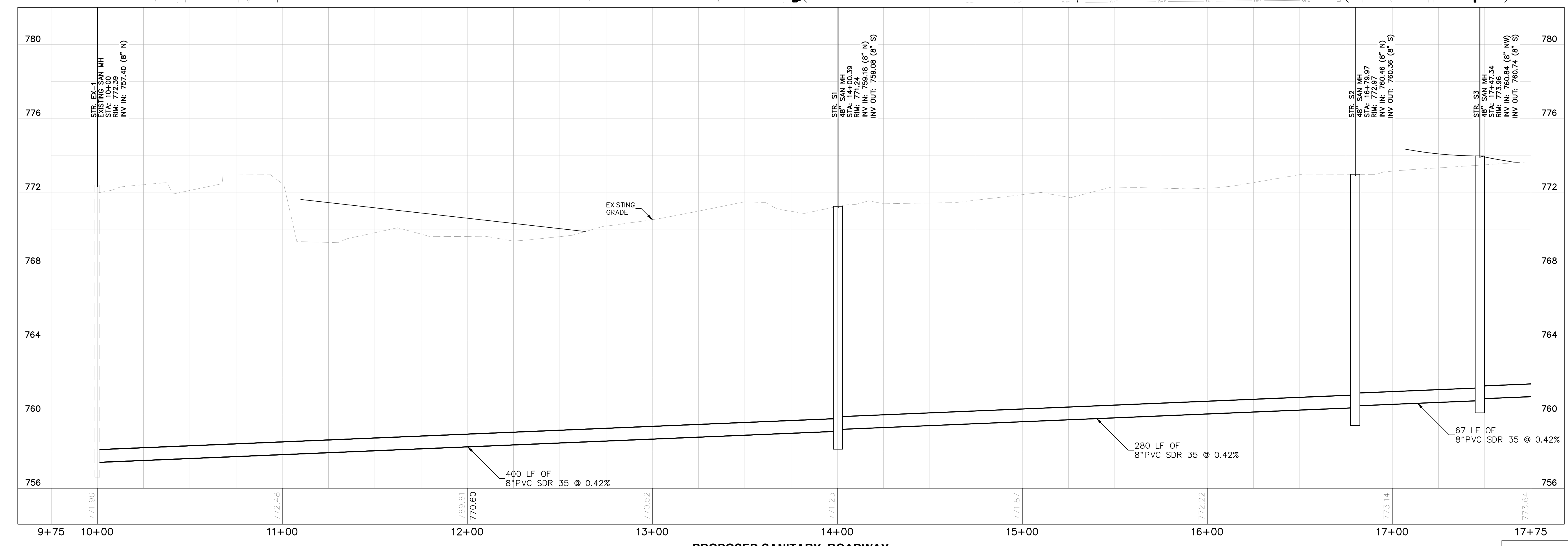
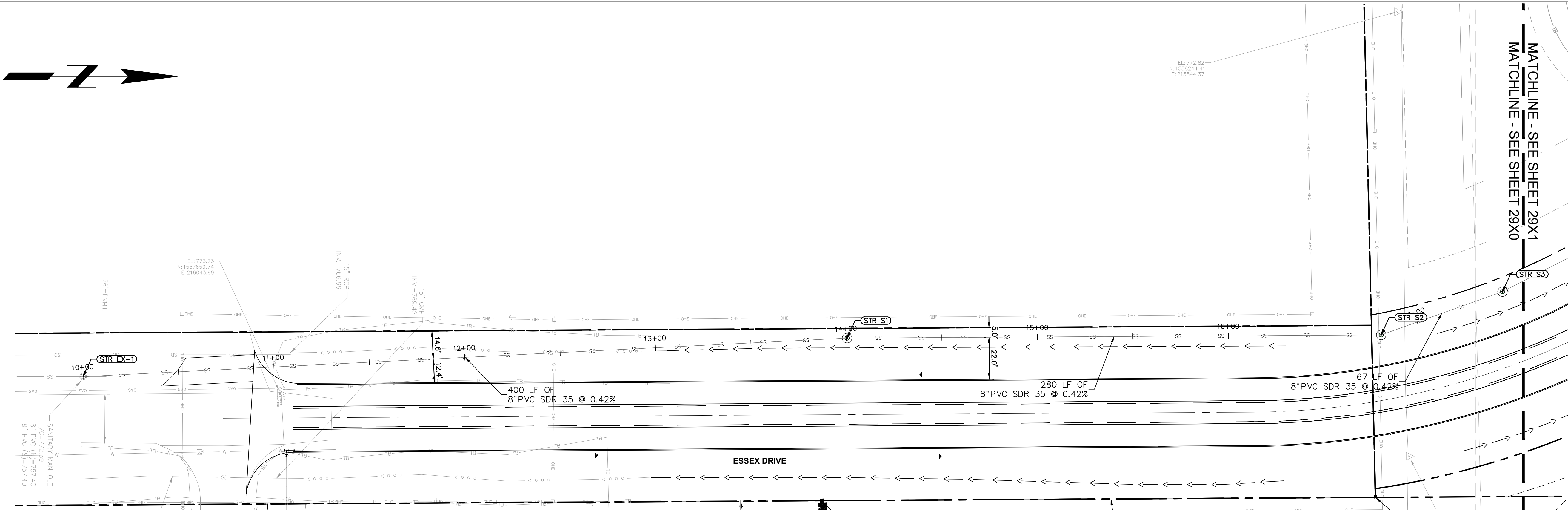
PHASE 2 - FINAL BUILDOUT  
SIGNING AND MARKING PLAN

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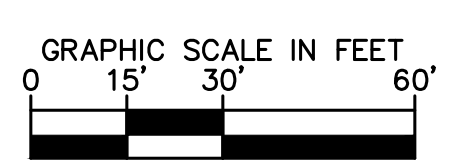


**PROFILE LEGEND**

- FULL DEPTH GRANULAR BACKFILL REQUIRED (PROFILE VIEW)
- EXISTING PROFILE GRADE
- PROPOSED PROFILE GRADE



**PROPOSED SANITARY ROADWAY**  
H: 1"=30 | V: 1"=3



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**Malarkey Roofing Products**

MALARKEY,IND FRANKLIN,IN

PHASE 2 - FINAL BUILDOUT  
SANITARY PLAN AND PROFILE

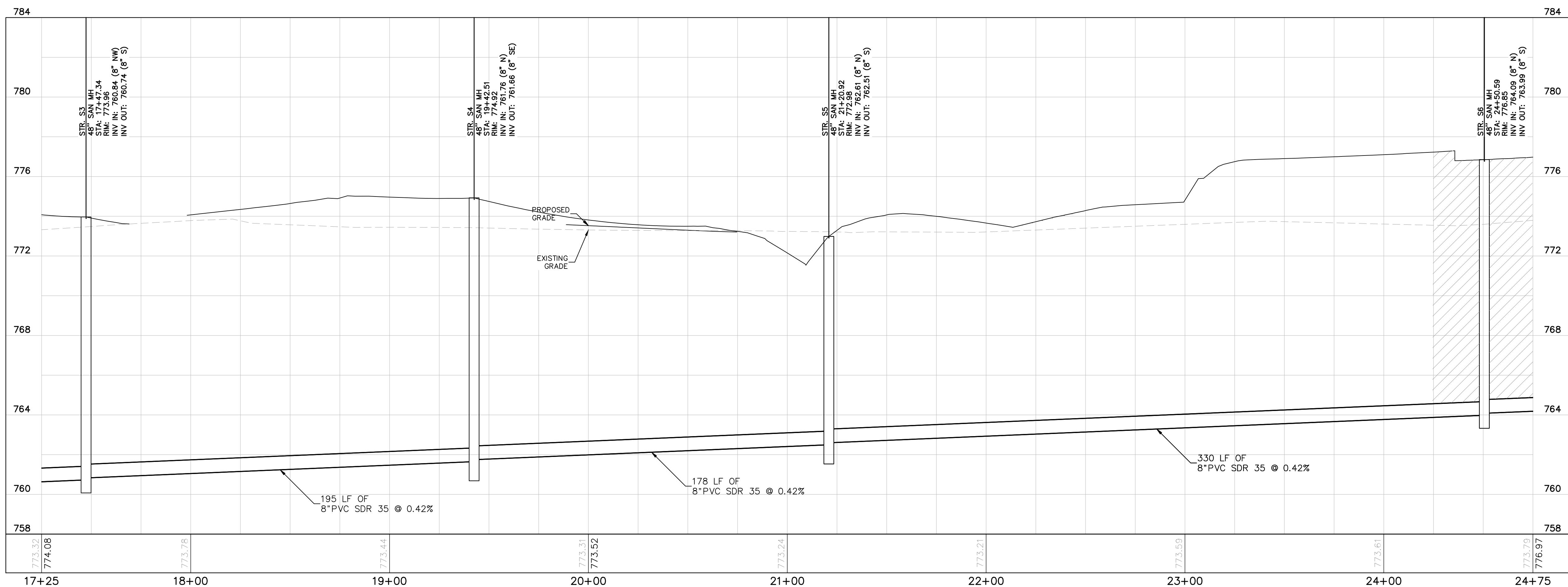
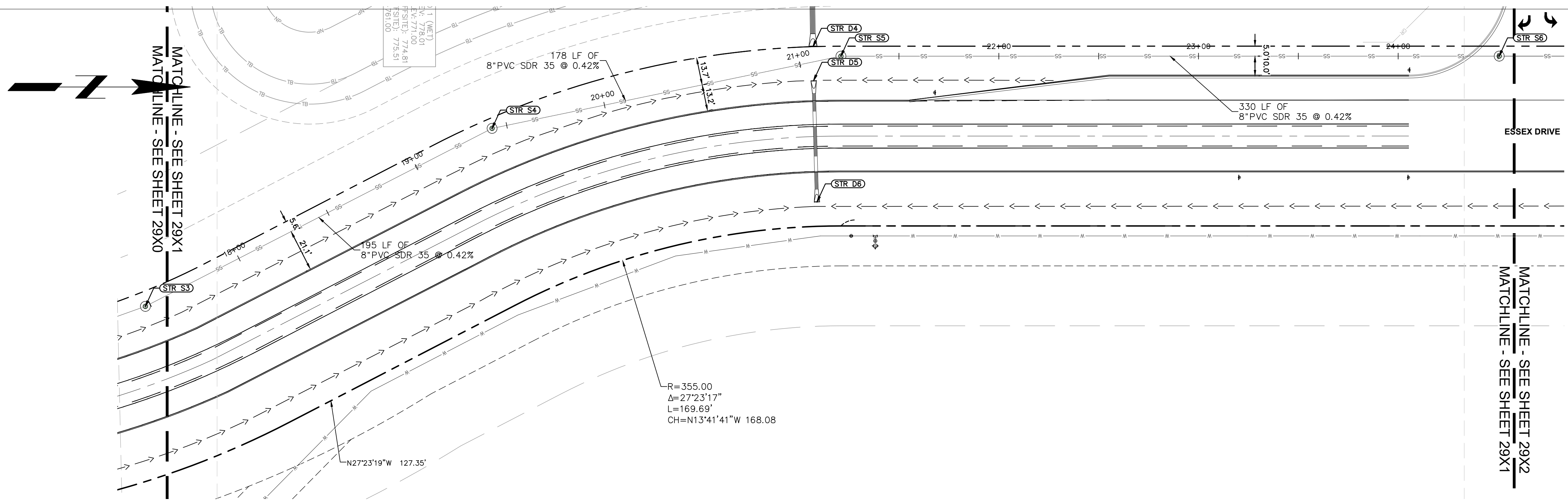
PROJ. NO.	170509000
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REV	0

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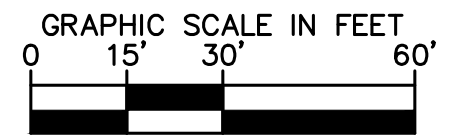


**PROFILE LEGEND**

- FULL DEPTH GRANULAR BACKFILL REQUIRED (PROFILE VIEW)
- EXISTING PROFILE GRADE
- PROPOSED PROFILE GRADE



**PROPOSED SANITARY ROADWAY**  
H: 1"=30 | V: 1"=3



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KHA PROJECT # 170509000

**Malarkey Roofing Products**

MALARKEY,IND FRANKLIN,IN

PHASE 2 - FINAL BUILDOUT  
SANITARY PLAN AND PROFILE

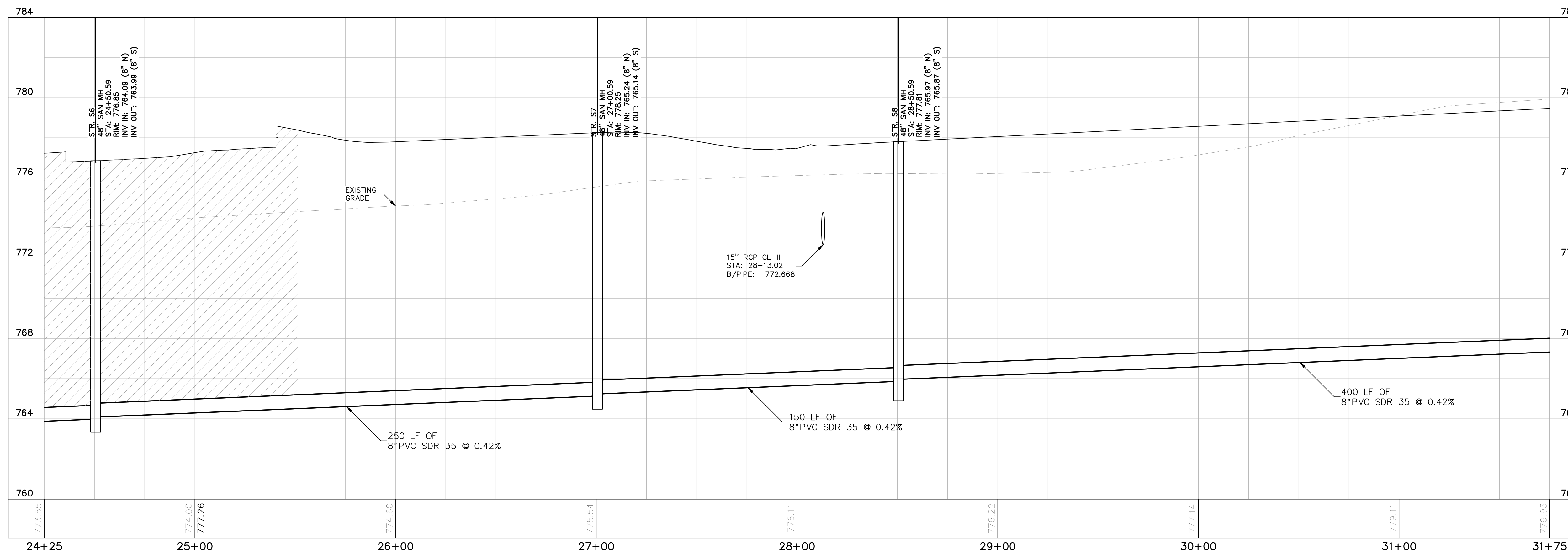
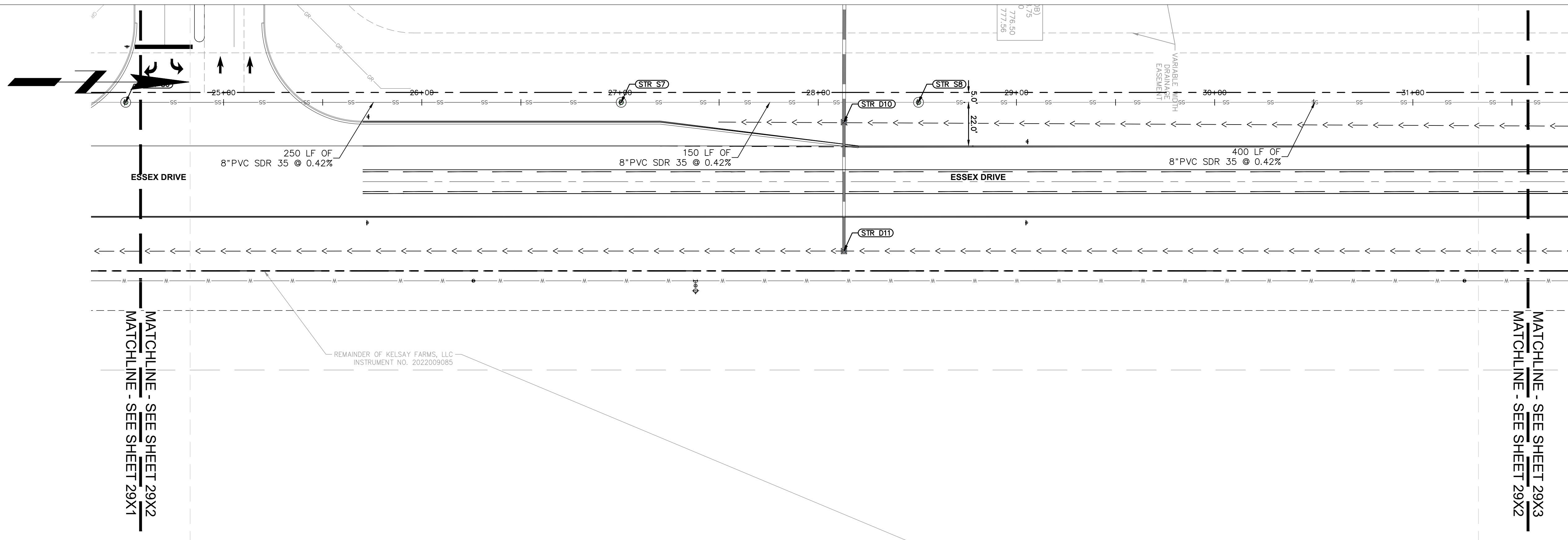
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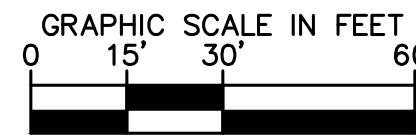


**PROFILE LEGEND**

- FULL DEPTH GRANULAR BACKFILL REQUIRED (PROFILE VIEW)
- EXISTING PROFILE GRADE
- PROPOSED PROFILE GRADE



**PROPOSED SANITARY ROADWAY**  
H: 1"=30 | V: 1"=3



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DWG SIZE: 36" X 24"

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KHA PROJECT # 170509000

**Malarkey Roofing Products**

MALARKEY,IND FRANKLIN,IN

PHASE 2 - FINAL BUILDOUT  
SANITARY PLAN AND PROFILE

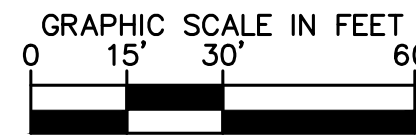
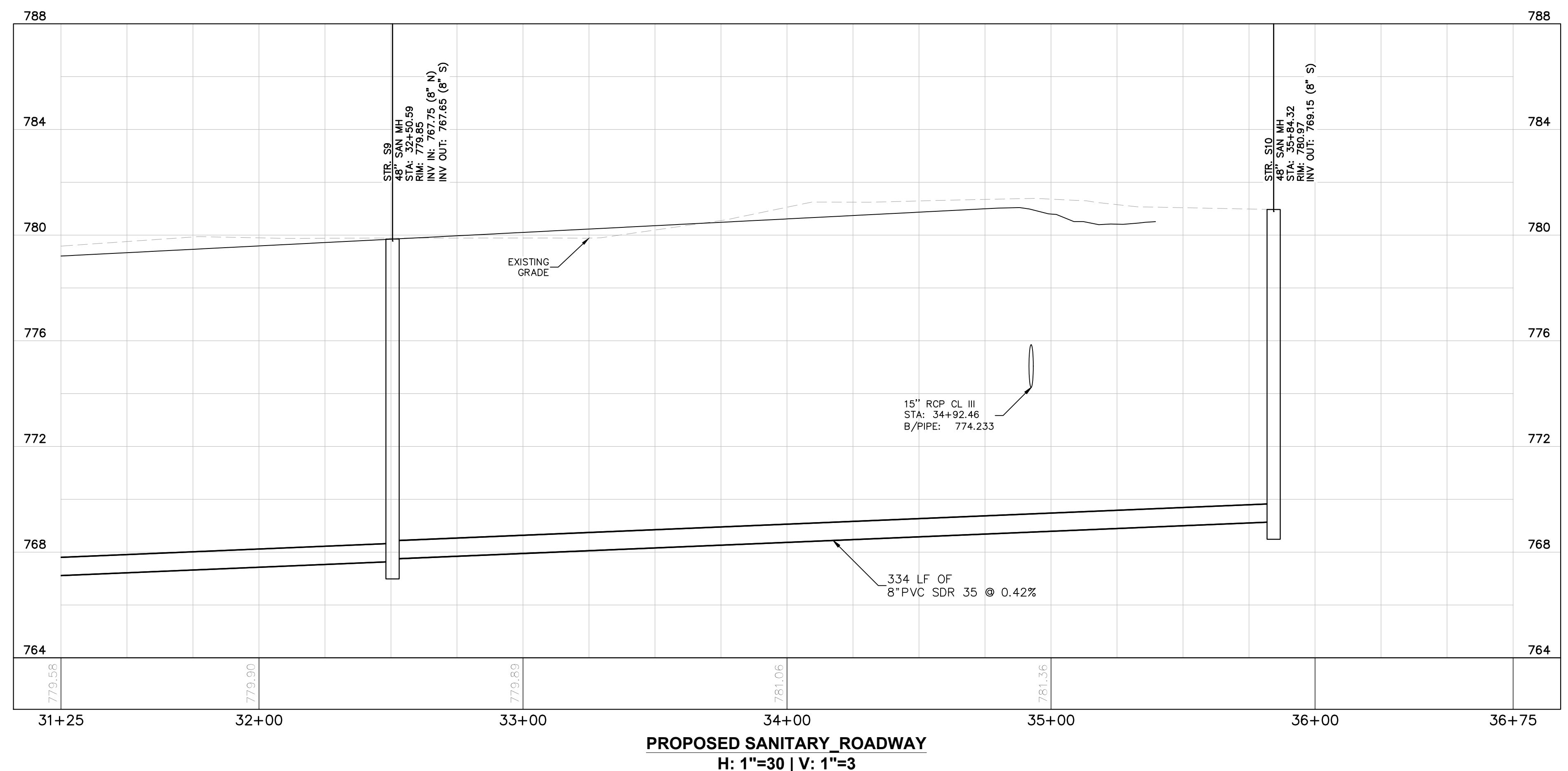
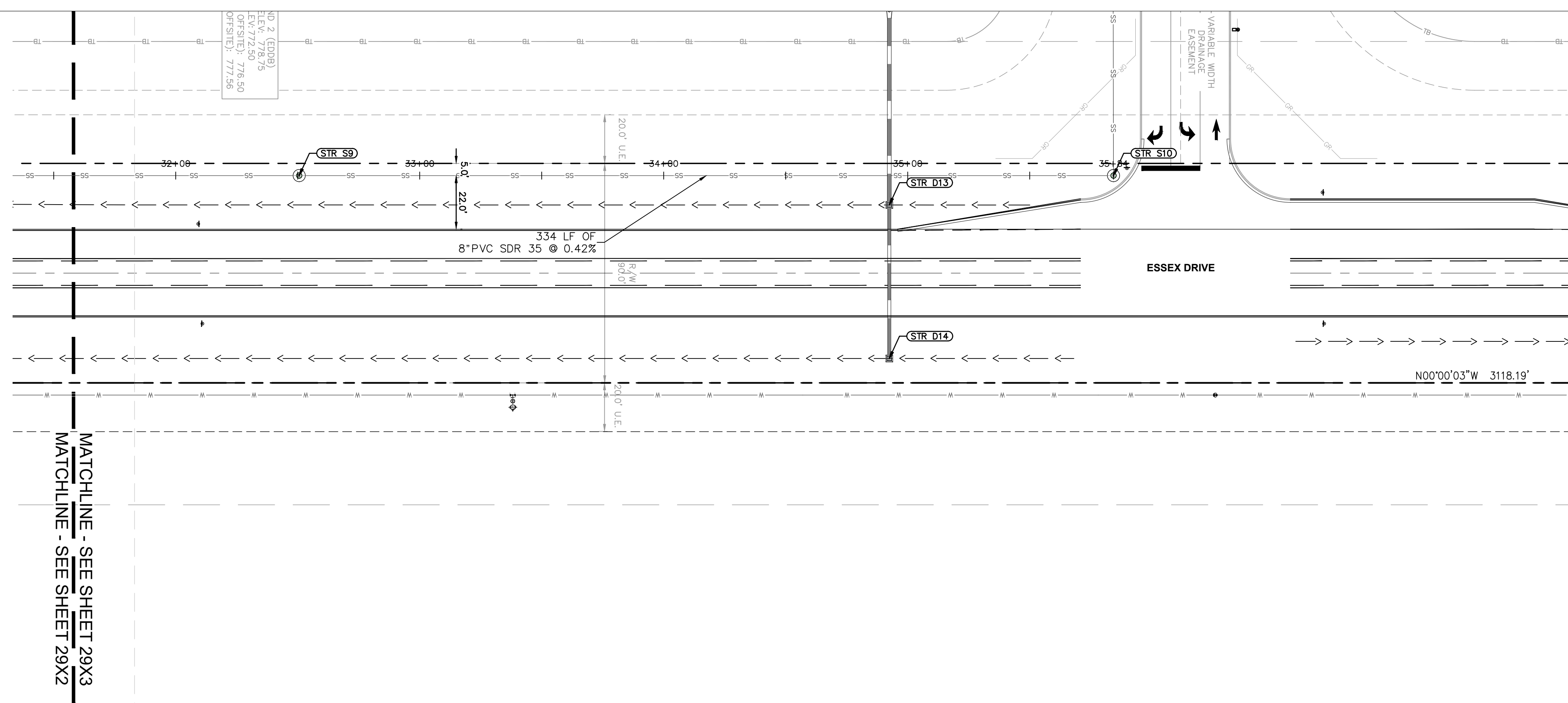
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**PROFILE LEGEND**

- FULL DEPTH GRANULAR BACKFILL REQUIRED (PROFILE VIEW)
- EXISTING PROFILE GRADE
- PROPOSED PROFILE GRADE



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DWG SIZE: 36" X 24"

REV	DESCRIPTION	DATE	IS.BY	REV	DESCRIPTION	DATE	IS.BY

SCALE: AS NOTED  
 DRWN.: VG  
 CHKD.: AMM  
 APPD.:  
 APPD.:  
 DATE : 10/10/24

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 KHA PROJECT # 170509000

**Malarkey Roofing Products**

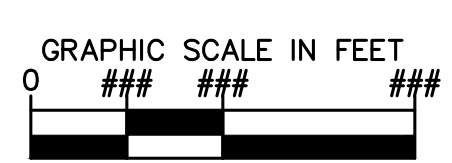
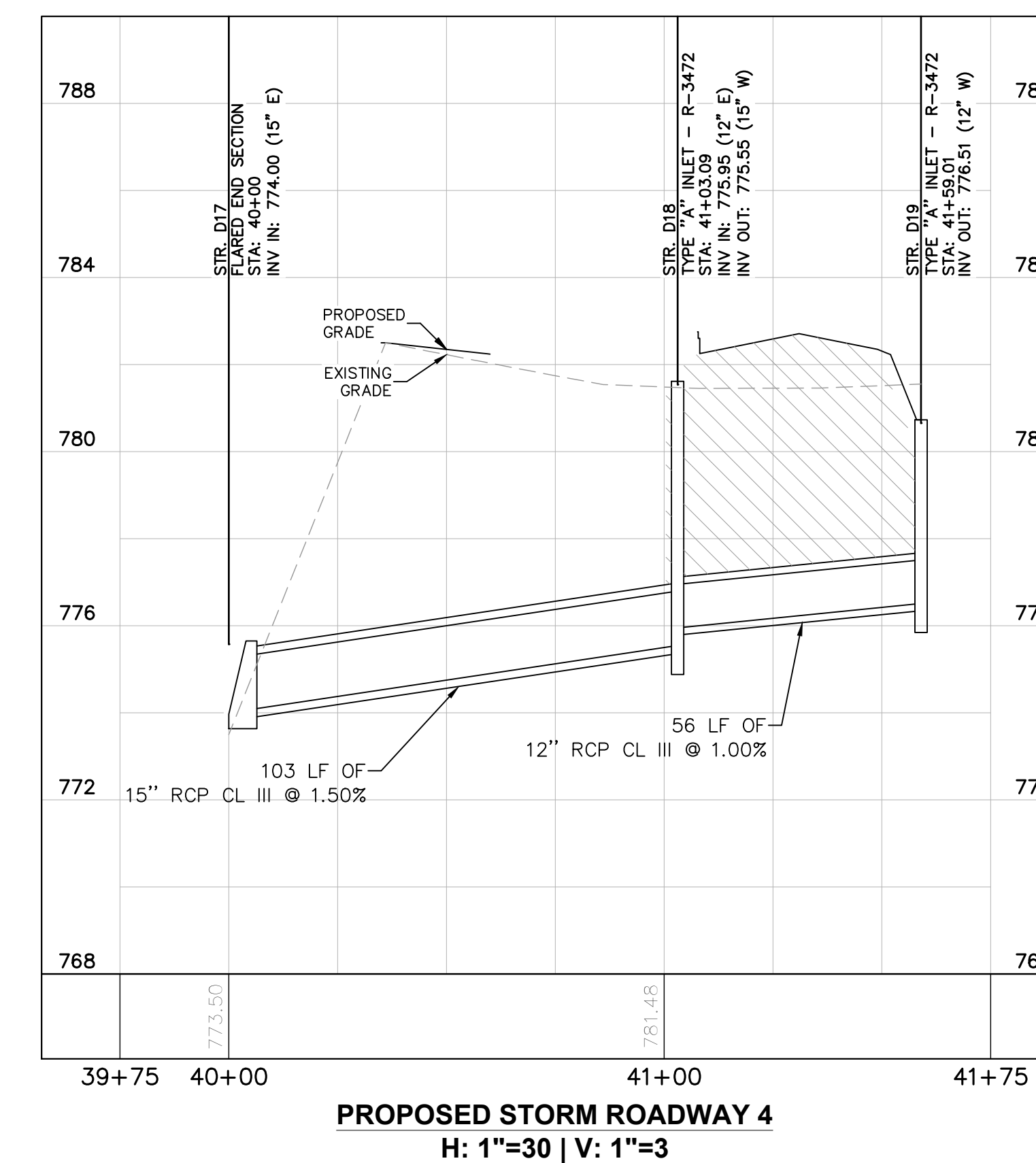
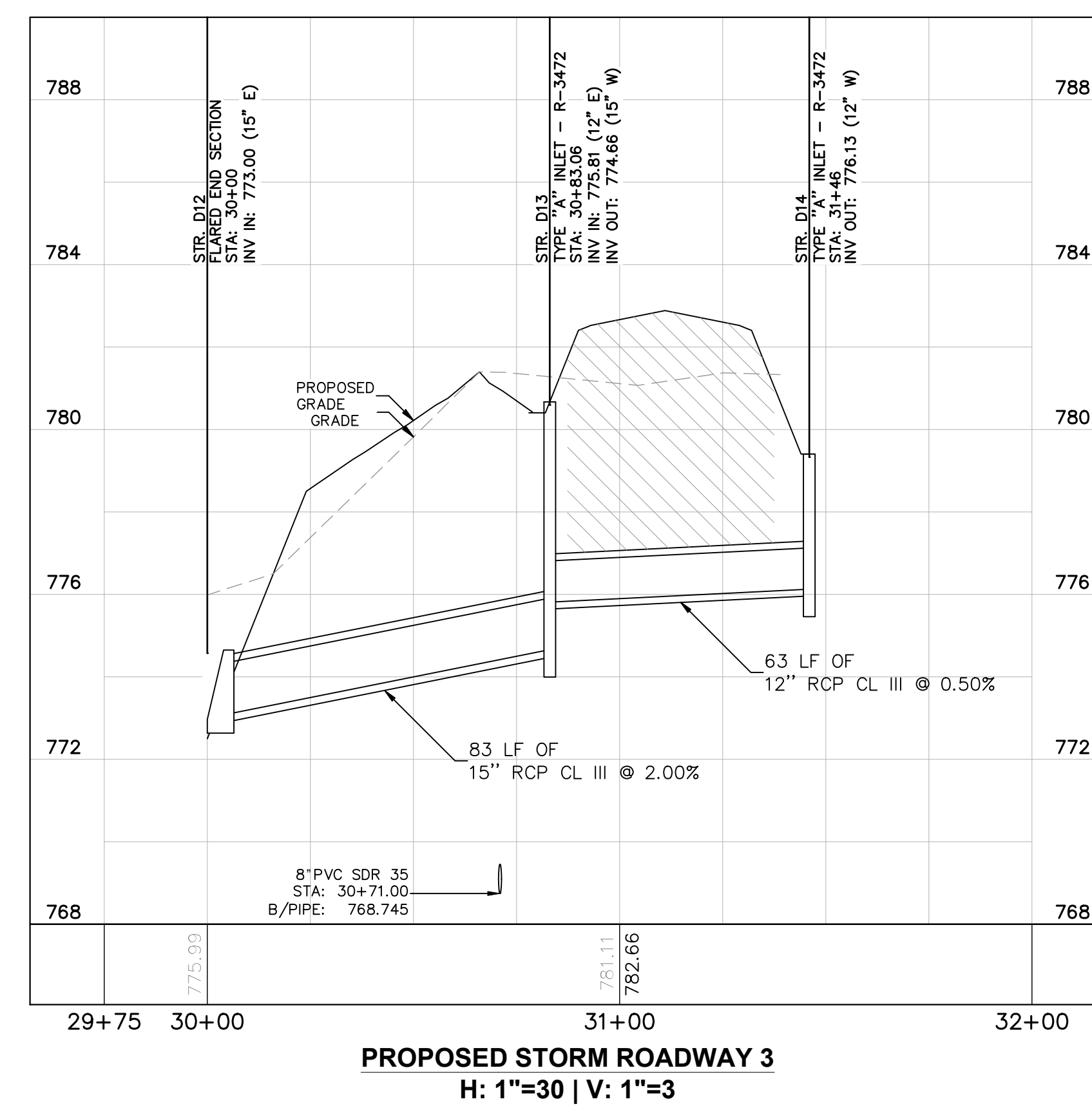
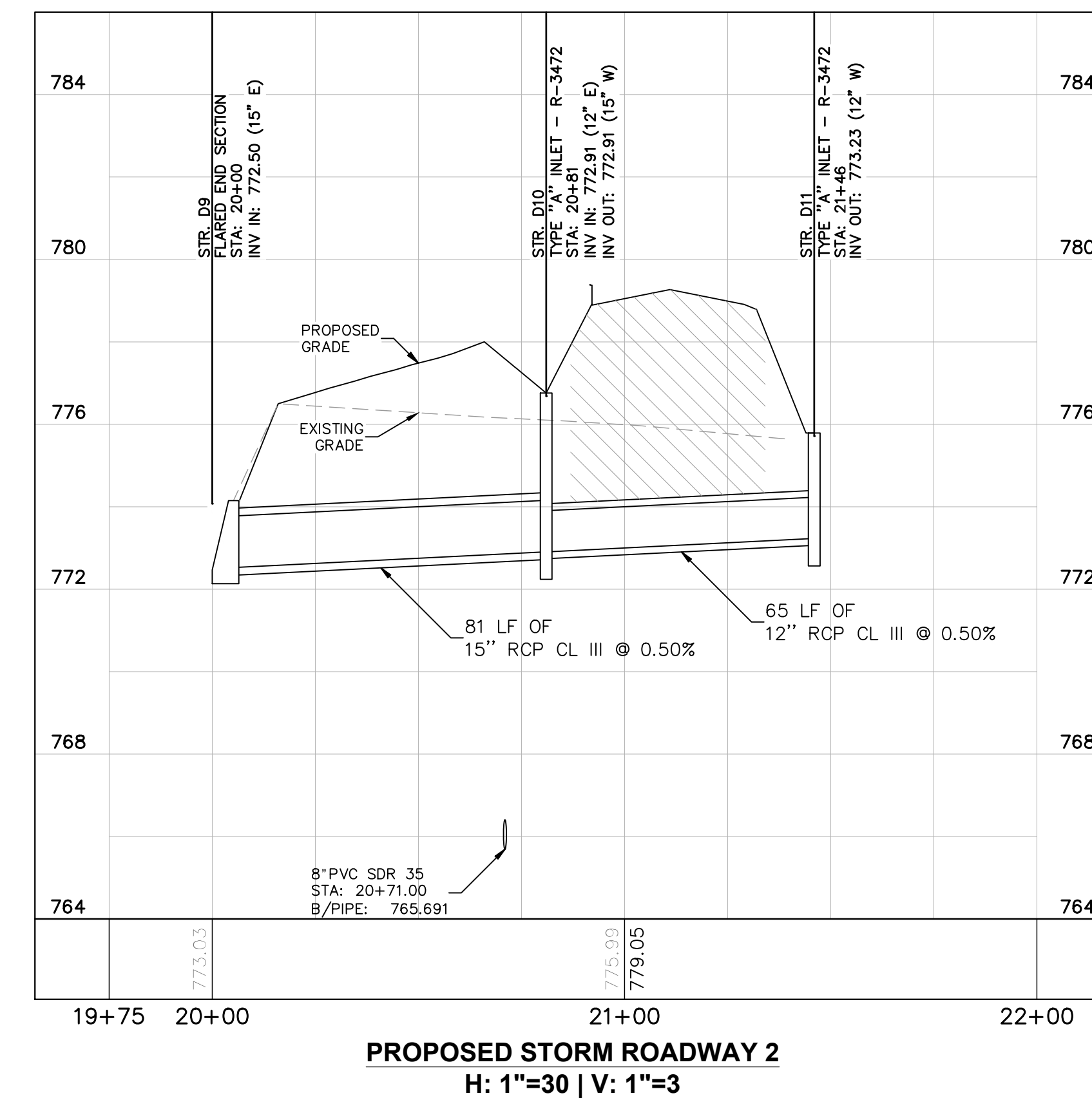
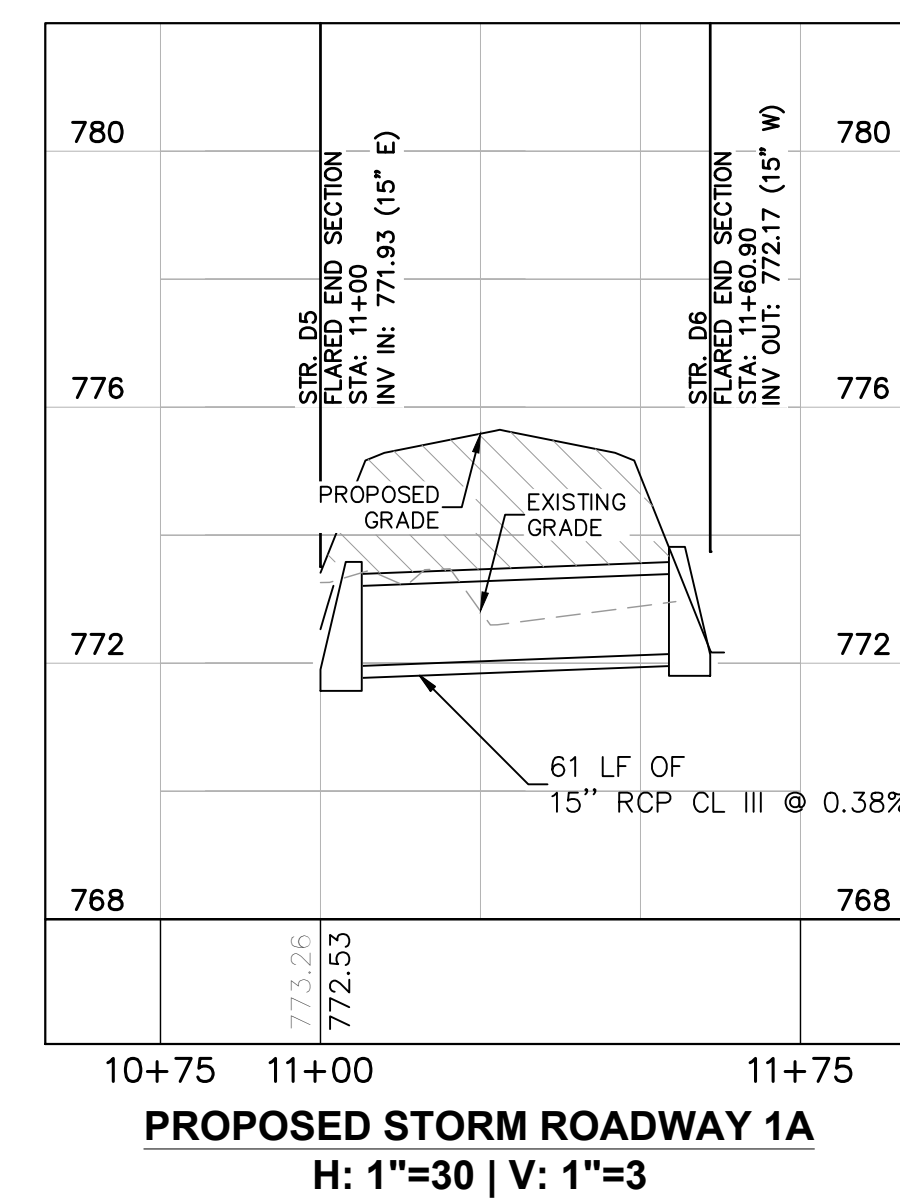
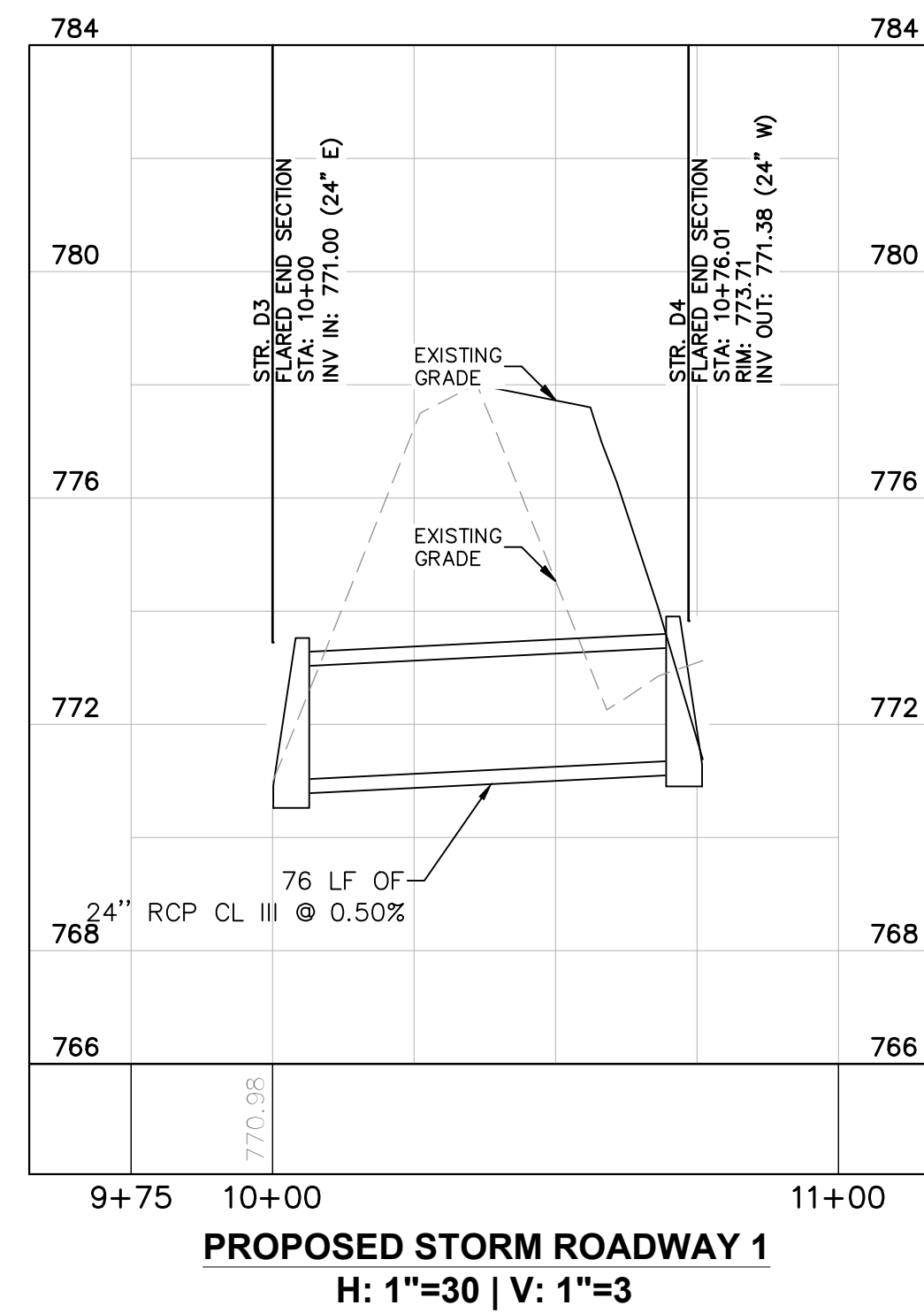
MALARKEY,IND FRANKLIN,IN

PHASE 2 - FINAL BUILDOUT  
 SANITARY PLAN AND PROFILE

PROJ. NO. 170509000  
 DWG. NO. 2953  
 SHEET 0  
 REV 0

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DWG SIZE: 36" X 24"

REV	DESCRIPTION	DATE	IS.BY	REV	DESCRIPTION	DATE	IS.BY

SCALE: AS NOTED

DRWN.: VG

CHKD.: AMM

APPD.: \_\_\_\_\_

APPD.: \_\_\_\_\_

DATE : 10/10/24

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KHA PROJECT # 170509000

MALARKEY,IND FRANKLIN,IN

PROJ. NO. 170509000

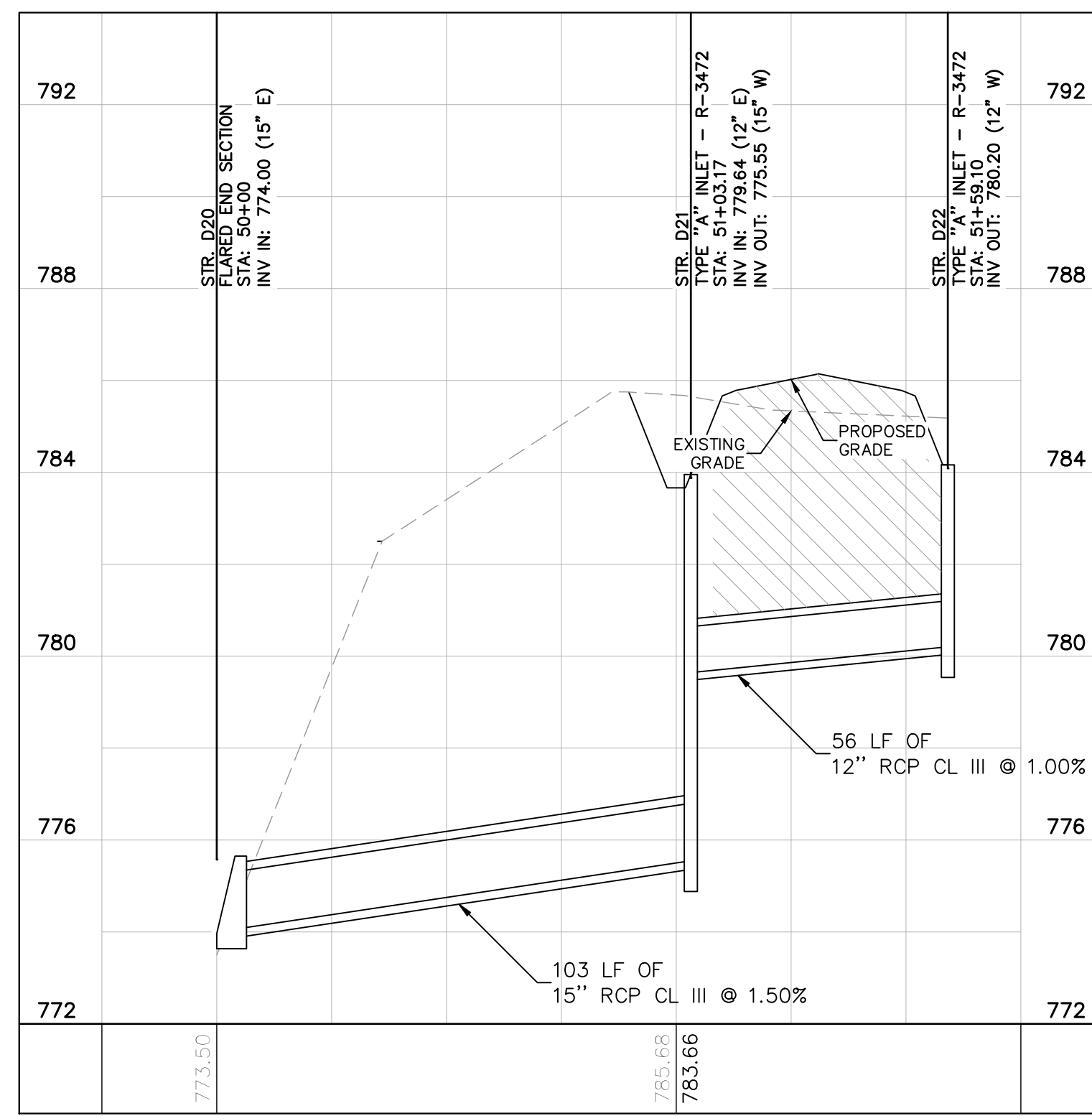
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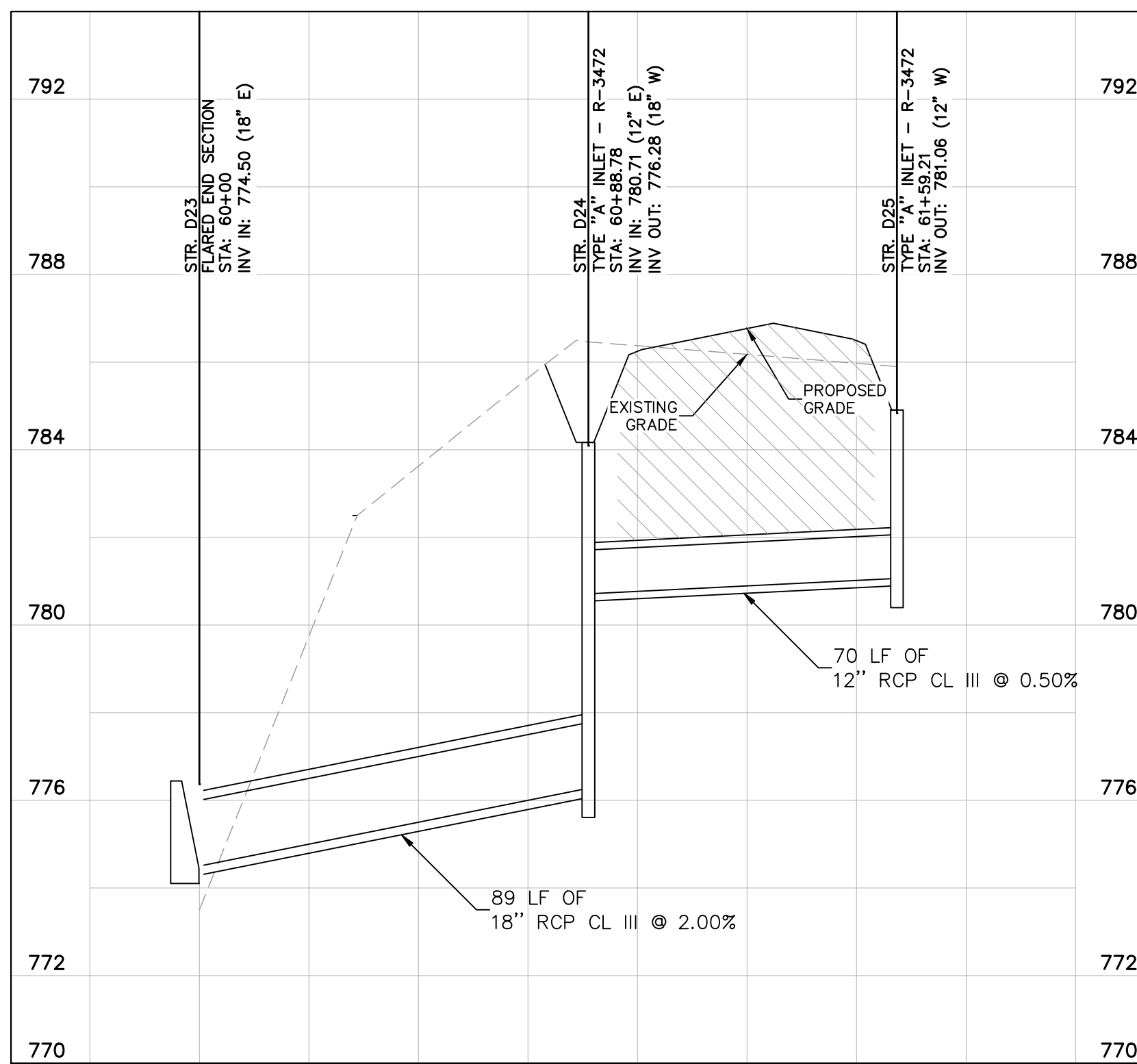
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PHASE 2 - FINAL BUILDOUT  
STORM PLAN AND PROFILE

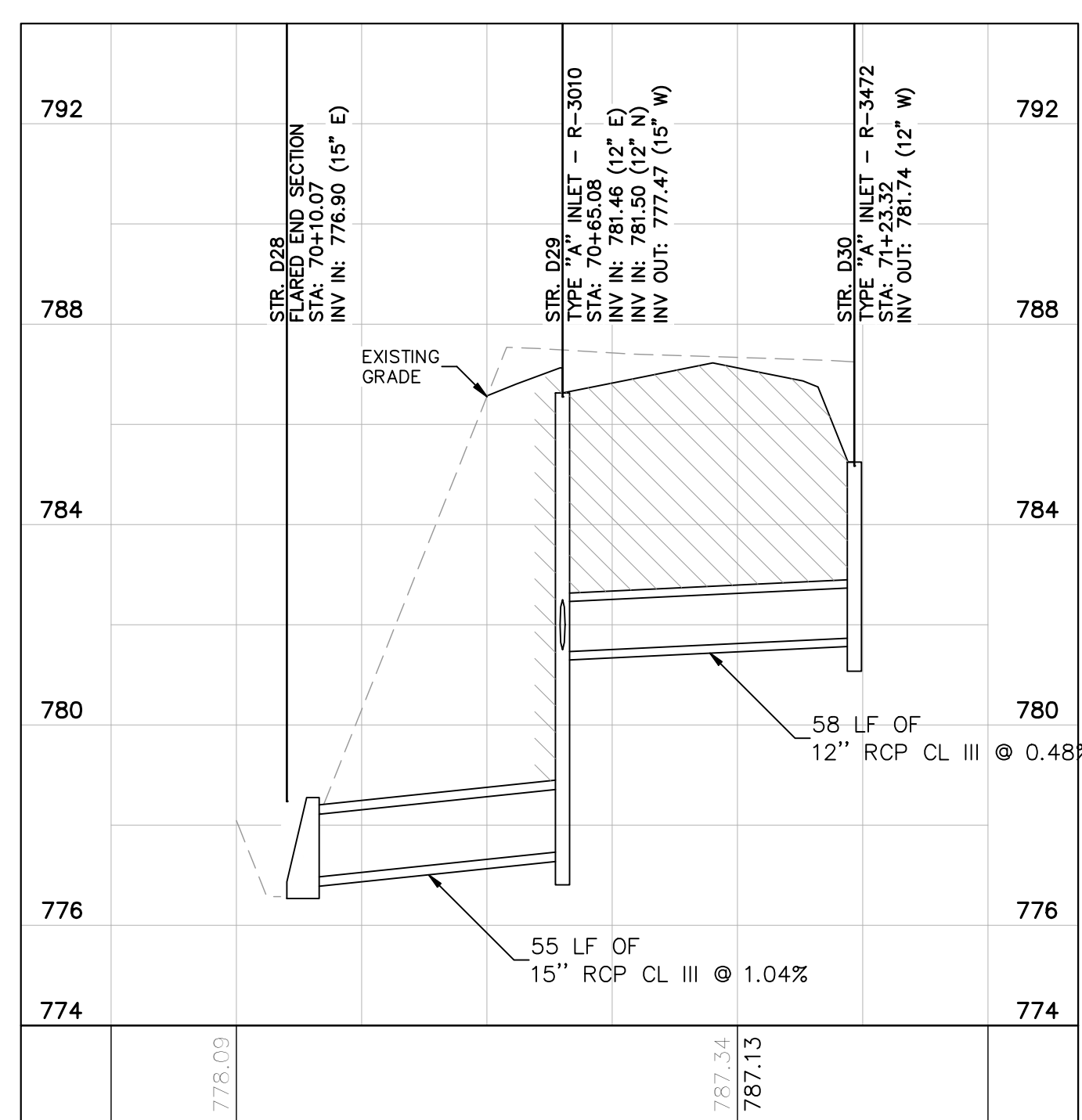
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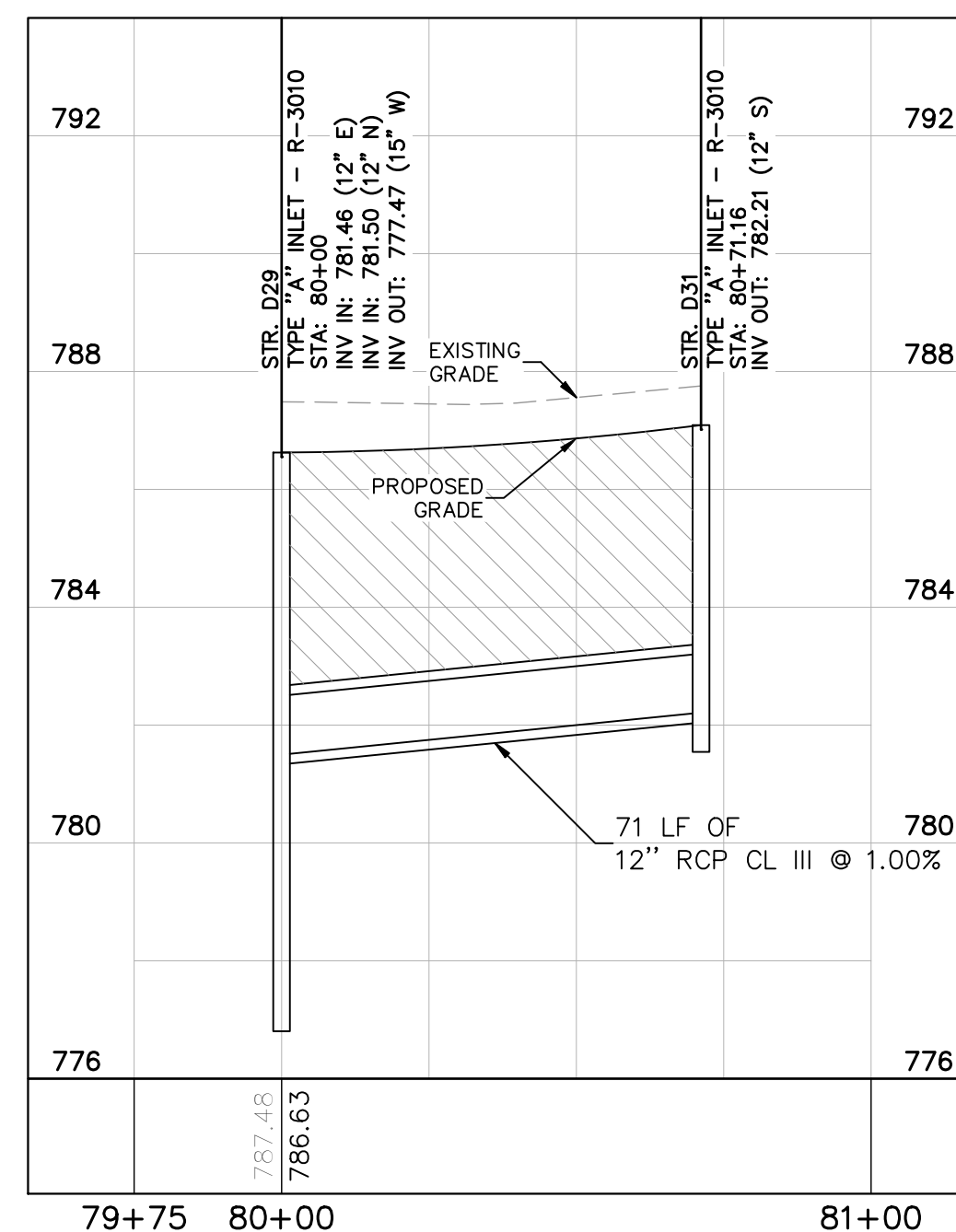
**PROPOSED STORM ROADWAY 5**  
H: 1"=30 | V: 1"=3



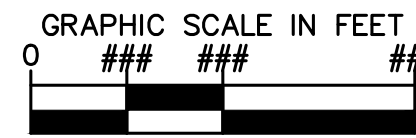
**PROPOSED STORM ROADWAY 6**  
H: 1"=30 | V: 1"=3



**PROPOSED STORM ROADWAY 7**  
H: 1"=30 | V: 1"=3



**PROPOSED STORM ROADWAY 8**  
H: 1"=30 | V: 1"=3



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DWG SIZE: 36" X 24"

REV	DESCRIPTION	DATE	IS.BY	REV	DESCRIPTION	DATE	IS.BY

**Quad Plus**  
Cooper & Associates, LLC

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**Kimley»Horn**  
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KHA PROJECT # 170509000

**Malarkey Roofing Products**

MALARKEY,IND FRANKLIN,IN

PROJ. NO. 170509000  
DWG. NO. 2961  
SHEET 0  
REV 0

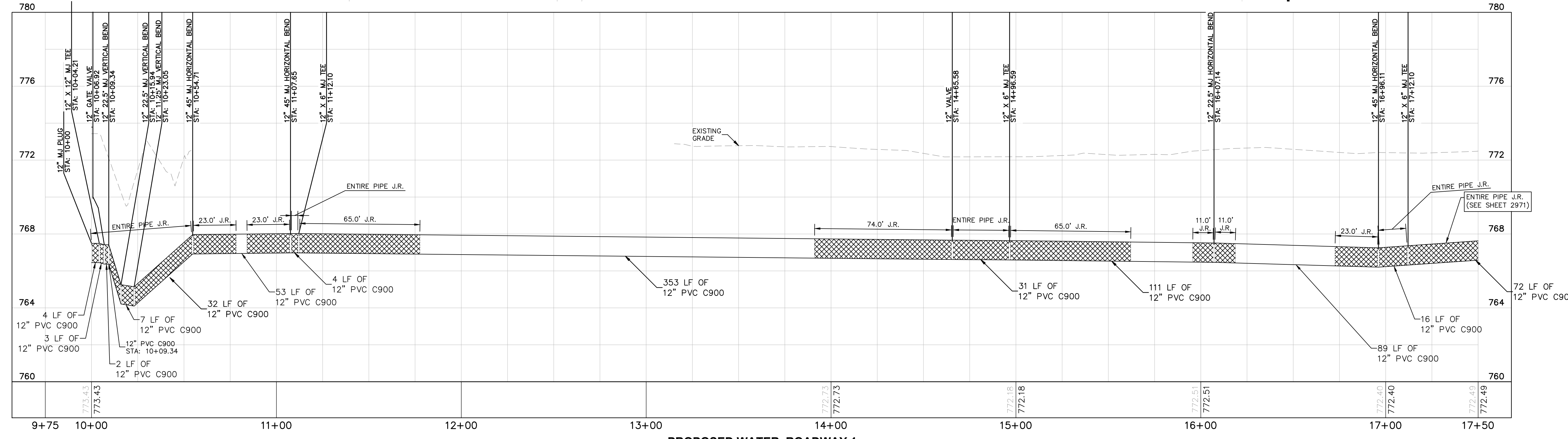
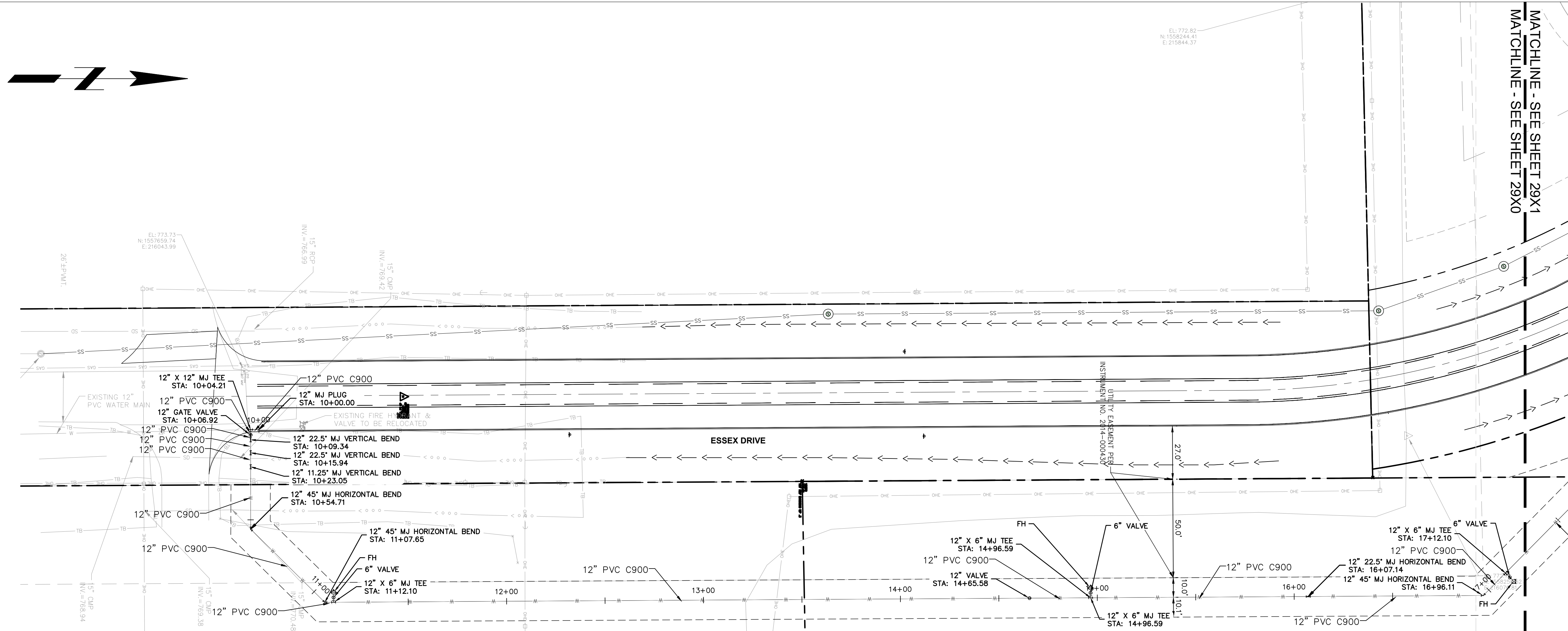
PHASE 2 - FINAL BUILDOUT  
STORM PLAN AND PROFILE

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### WATERMAIN NOTES

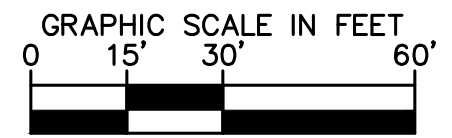
- WATER UTILITY INSTALLATION NOTES
- INSTALLATION OF WATER MAIN, FITTINGS, VALVES, FIRE HYDRANTS, AND APPURTENANCES SHALL BE IN ACCORDANCE WITH INDIANA AMERICAN WATER STANDARDS AND SPECIFICATIONS, LATEST REVISION.
  - IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION, SIZE AND MATERIAL OF THE EXISTING WATER MAIN PRIOR TO CONSTRUCTION.
  - AT THE POINT OF CONNECTION TO EXISTING WATER MAINS, A TAPPING SLEEVE AND VALVE MAY BE REQUIRED TO BE INSTALLED IF THE EXISTING WATER MAIN CANNOT BE SHUT DOWN WITHOUT IMPACTING CUSTOMERS, TO BE DETERMINED AT THE PRE-CONSTRUCTION MEETING.
  - FOR PVC C900 PIPE INSTALLATION: DR14 PIPE IS REQUIRED. DEFLECTION OF PIPE JOINTS AND BENDING OF PIPES ARE NOT PERMITTED. ALL ANGLES SHALL BE MADE WITH PROPER FITTINGS. WHEN RESTRAINT OF PIPE-TO-PIPE JOINTS ARE REQUIRED, ALL JOINTS SHALL BE RESTRAINED WITH EXTERNAL SPLIT SERRATED RESTRAINT HARNESSSES. SELECT FILL MATERIAL REQUIRED FOR BEDDING AND EMBEDMENT REGARDLESS OF PIPE'S PROXIMITY TO PAVEMENT. PVC C900 PIPE IS NOT ALLOWED FOR PIPES LARGER THAN 12-INCH.
  - FOR DUCTILE IRON PIPE INSTALLATION: THICKNESS CLASS 52 FOR TYPICAL DISTRIBUTION MAINS 12-INCH NOMINAL SIZE AND SMALLER. WHEN RESTRAINT OF PIPE-TO-PIPE JOINTS ARE REQUIRED, PUSH-ON RESTRAINING GASKETS WITH INTEGRAL STAINLESS STEEL LOCKING SEGMENTS ARE PERMITTED ON PIPE-TO-PIPE CONNECTIONS 12-INCH NOMINAL SIZE AND SMALLER ONLY. PIPE-TO-PIPE CONNECTIONS GREATER THAN 12-INCH NOMINAL SIZE SHALL BE RESTRAINED PER SPECIFICATION SECTION 15105.
  - FOR HDPE PIPE INSTALLATION: DIPS DR11 FOR SIZES 4 INCH AND LARGER, IPS DR9 FOR 3 INCH. AND CTS DR9 FOR SIZES SMALLER THAN 3 INCH. HDPE BENDS, TEES, AND CROSSES ARE NOT ACCEPTABLE. PRESSURE TESTING OF HDPE PIPE DIFFERS FROM DUCTILE IRON AND PVC PIPE. SEE SPECIFICATION SECTION 15030-3.03. PIPE FUSION MUST BE COMPLETED BY CERTIFIED TECHNICIAN; CERTIFICATION TO BE SUBMITTED PRIOR TO PRECONSTRUCTION MEETING.
  - ENCASE ALL DUCTILE IRON PIPING, DUCTILE IRON FITTINGS, VALVES, HYDRANTS, RESTRAINT HARNESSSES, AND ALL OTHER METALLIC APPURTENANCES IN 12MIL BLUE POLYETHYLENE.
  - ALL FIRE HYDRANT LATERALS SHALL BE DUCTILE IRON PIPE.
  - ALL MJ T-BOLTS AND FLANGE BOLTS SHALL HAVE NYLON OR FLUOROKOTE #1 CORROSION RESISTANT COATING.
  - ALL FITTINGS SHALL BE RESTRAINED USING MJ RETAINER GLANDS.
  - THRUST RESTRAINT TO BE ACHIEVED THROUGH THE RESTRAINT OF PIPE JOINTS AND FITTINGS. THRUST BLOCKS ARE NOT AN ACCEPTABLE MEANS OF THRUST RESTRAINT, EXCEPT WHEN REQUIRED IN CONNECTING TO EXISTING WATER MAIN AND FOR INSTALLATION OF FIRE HYDRANTS. SEE SPECIFICATION SECTIONS 15105 AND 15120 FOR PIPE JOINT RESTRAINT REQUIREMENTS FOR DUCTILE IRON AND PVC PIPE.
  - COPPER-CLAD STEEL TRACER WIRE REQUIRED ON INSTALLATION OF ALL PIPE. TRACER WIRE SHALL BE TAPED TO PIPE OR POLYETHYLENE ENCASUREMENT AT A MINIMUM SPACING OF 10-FEET. SPLICES SHALL BE ENCASED IN WATERPROOF CONNECTORS. WIRE AND CONNECTORS ARE TO BE COMPATIBLE AND FROM THE SAME MANUFACTURER. DETECTABLE TAPE IS REQUIRED ONE FOOT ABOVE PIPE. CONTINUITY SHALL BE TESTED AFTER COMPLETION OF BACKFILL.
  - SELECT FILL MATERIAL REQUIRED FOR FINAL BACKFILL WHEN WITHIN 5-FEET OF PAVEMENT PER SPECIFICATION SECTION 02210.
  - MAINTAIN THE REQUIRED 10- FEET OF HORIZONTAL SEPARATION AND 18-INCHES OF VERTICAL SEPARATION FROM SANITARY AND STORM SEWERS. MAINTAIN 8- FEET OF HORIZONTAL SEPARATION FROM SANITARY AND STORM STRUCTURES. SEE 327 IAC 8-3.2-9 OF THE INDIANA ADMINISTRATIVE CODE FOR MORE INFORMATION.
  - MAINTAIN MINIMUM COVER DEPTH OF 54" AND A MAXIMUM OF 78".



PROPOSED WATER ROADWAY 1  
H: 1"=30 | V: 1"=3

#### PROFILE LEGEND

- JOINT RESTRAINTS (JR)
- EXISTING PROFILE GRADE
- PROPOSED PROFILE GRADE



PROFESSIONAL SEAL

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DWG SIZE: 36" X 24"

REV	DESCRIPTION	DATE	IS.BY	REV	DESCRIPTION	DATE	IS.BY

SCALE: AS NOTED

DRWN.: VG  
CHKD.: AMM  
APPD.:  
APPD.:  
DATE : 10/10/24

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KHA PROJECT # 170509000

PROJ. NO. 170509000  
DWG. NO. 2970  
SHEET 0

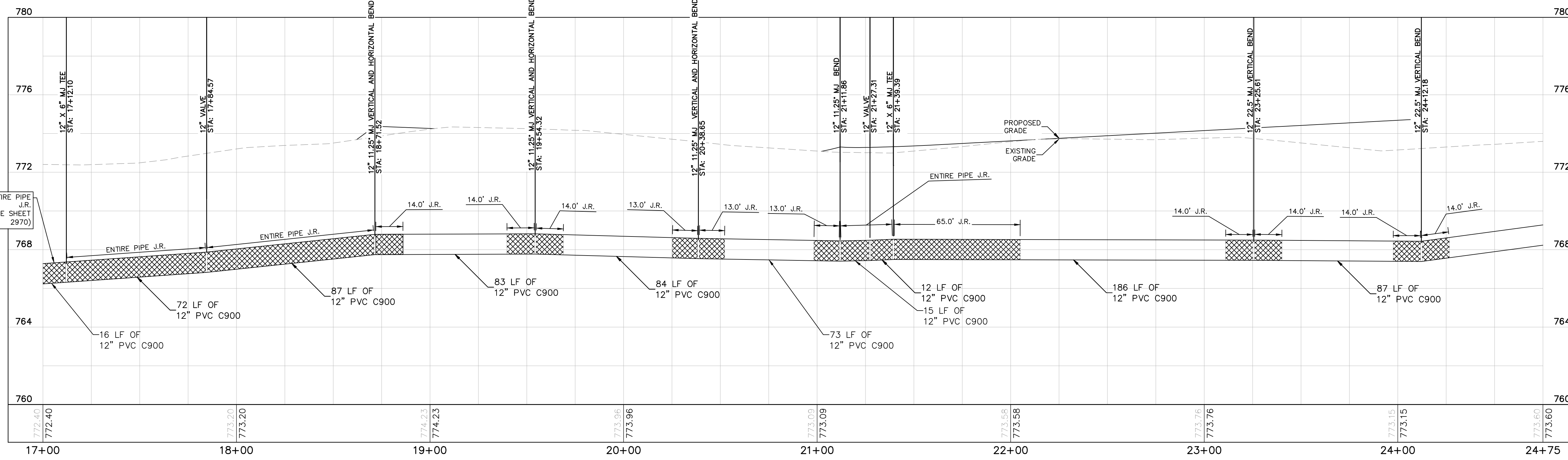
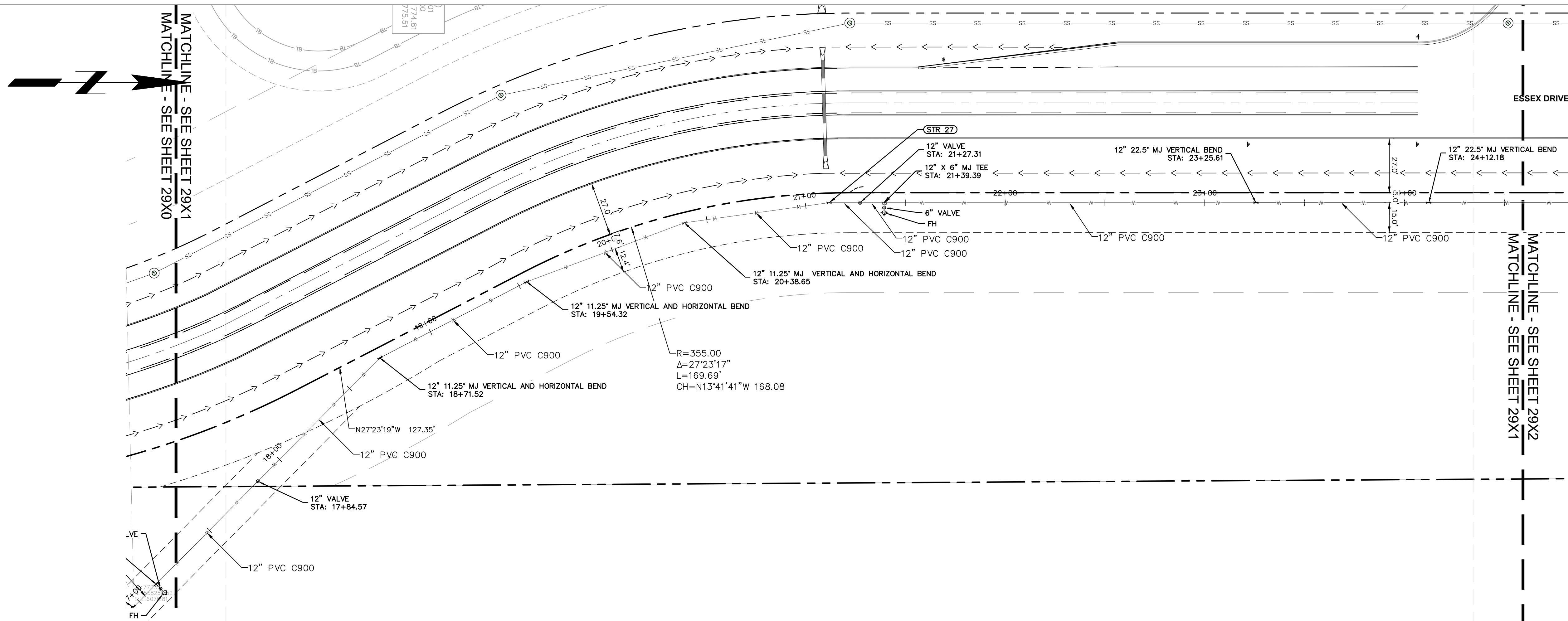
PHASE 2 - FINAL BUILDOUT  
WATER PLAN AND PROFILE

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### WATERMAIN NOTES

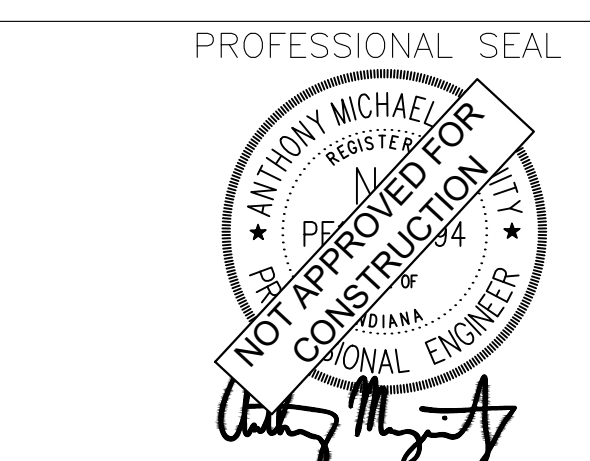
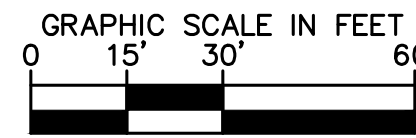
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  - MAINTAIN MINIMUM COVER DEPTH OF 54" AND A MAXIMUM OF 78".



**PROPOSED WATER ROADWAY 1**  
H: 1"=30 | V: 1"=3

**PROFILE LEGEND**

- JOINT RESTRAINTS (JR)
- EXISTING PROFILE GRADE
- PROPOSED PROFILE GRADE



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KHA PROJECT # 170509000

**Malarkey Roofing Products**

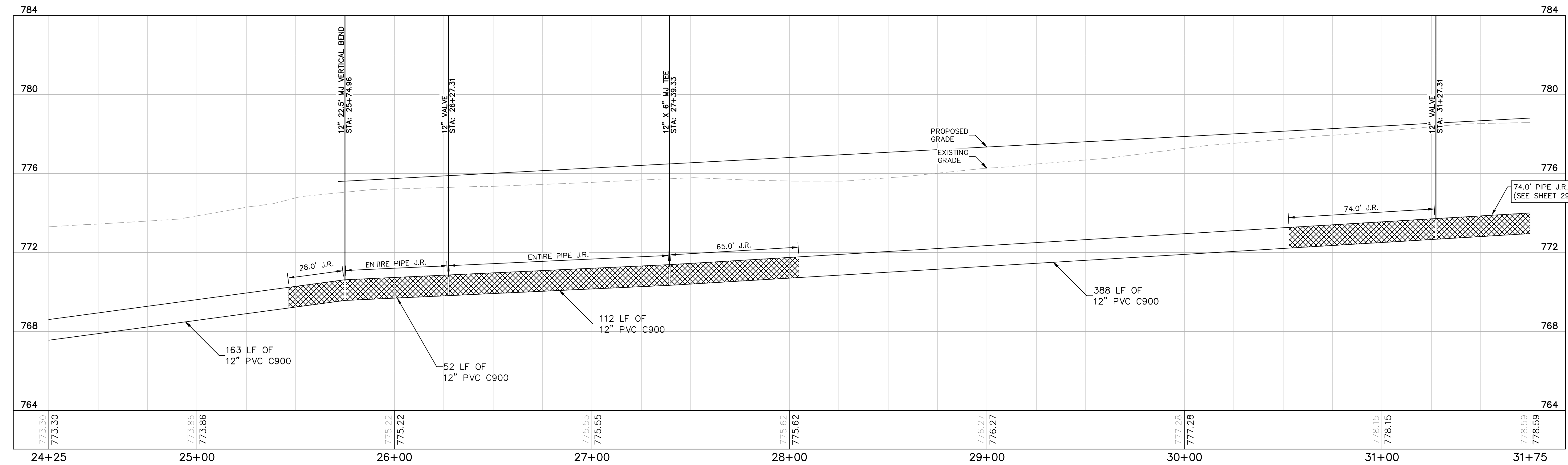
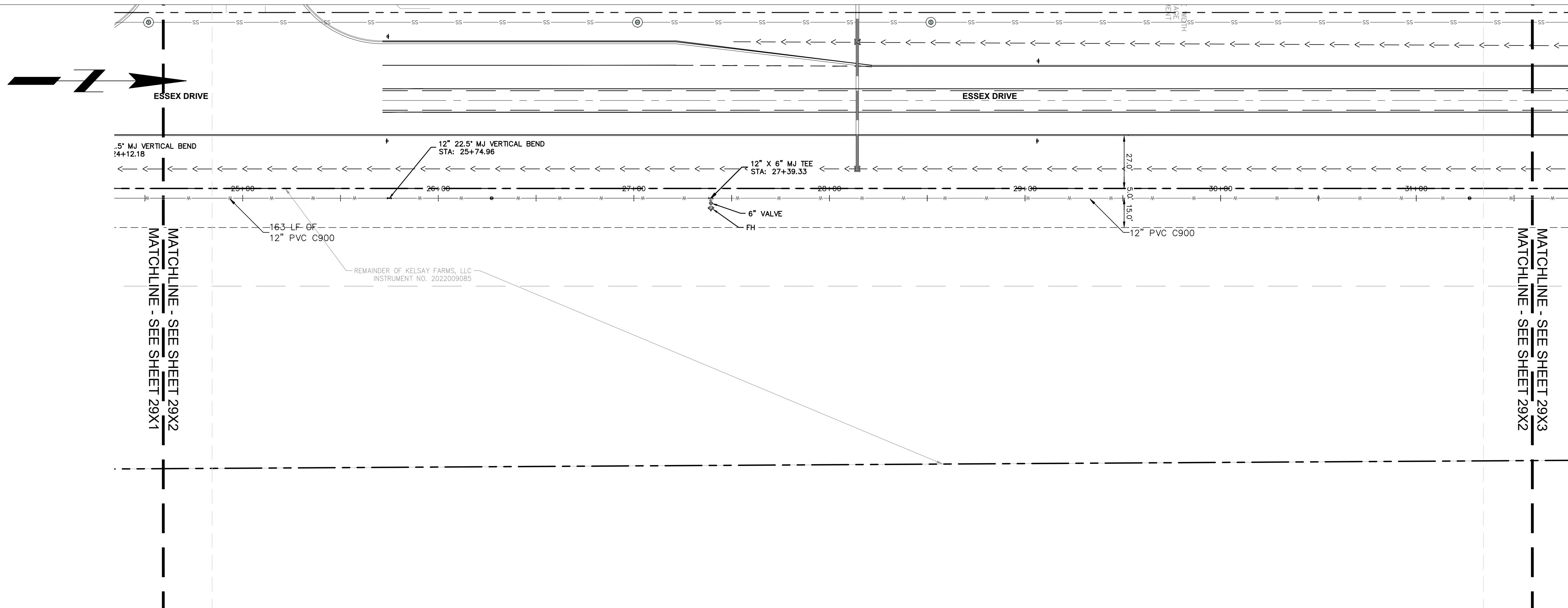
PROJ. NO. 170509000  
DWG. NO. 2971  
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REV 0

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### WATERMAIN NOTES

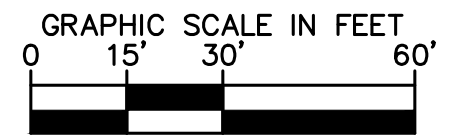
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  - MAINTAIN MINIMUM COVER DEPTH OF 54" AND A MAXIMUM OF 78".



PROPOSED WATER ROADWAY 1  
H: 1"=30 | V: 1"=3

#### PROFILE LEGEND

- JOINT RESTRAINTS (J.R)
- EXISTING PROFILE GRADE
- PROPOSED PROFILE GRADE



PROFESSIONAL SEAL

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DWG SIZE: 36" X 24"

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KHA PROJECT # 170509000

**Malarkey Roofing Products**

MALARKEY,IND FRANKLIN,IN

PHASE 2 - FINAL BUILDOUT  
WATER PLAN AND PROFILE

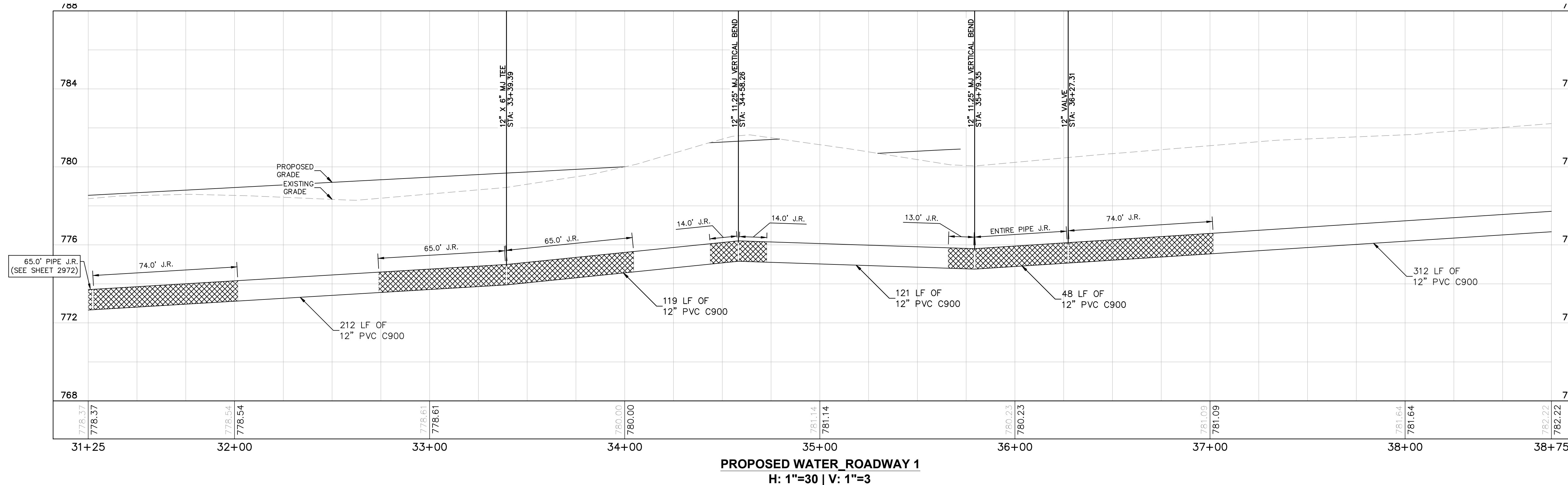
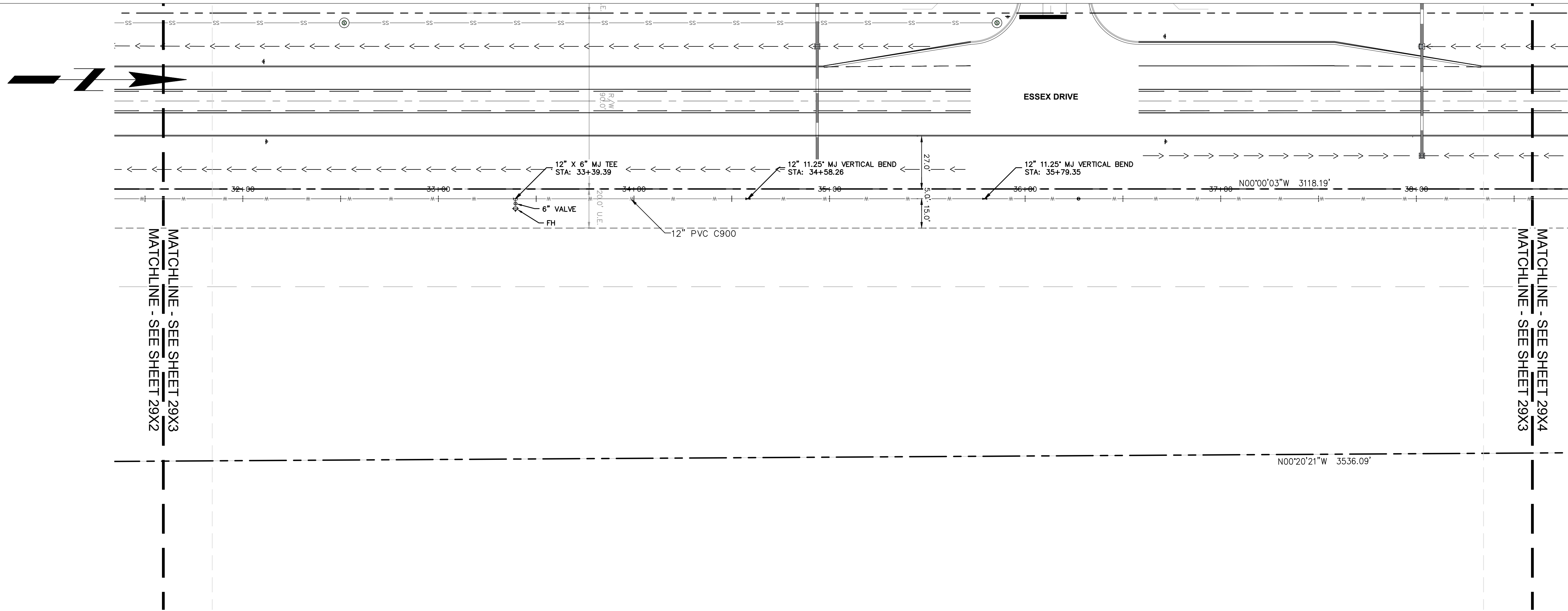
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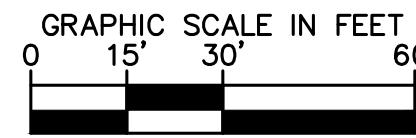
### WATERMAIN NOTES

- WATER UTILITY INSTALLATION NOTES**
- INSTALLATION OF WATER MAIN, FITTINGS, VALVES, FIRE HYDRANTS, AND APPURTENANCES SHALL BE IN ACCORDANCE WITH INDIANA AMERICAN WATER STANDARDS AND SPECIFICATIONS, LATEST EDITION.
  - IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION, SIZE AND MATERIAL OF THE EXISTING WATER MAIN PRIOR TO CONSTRUCTION.
  - AT THE POINT OF CONNECTION TO EXISTING WATER MAINS, A TAPPING SLEEVE AND VALVE MAY BE REQUIRED TO BE INSTALLED IF THE EXISTING WATER MAIN CANNOT BE SHUT DOWN WITHOUT IMPACTING CUSTOMERS, TO BE DETERMINED AT THE PRE-CONSTRUCTION MEETING.
  - FOR PVC C900 PIPE INSTALLATION: DR14 PIPE IS REQUIRED. DEFLECTION OF PIPE JOINTS AND BENDING OF PIPES ARE NOT PERMITTED. ALL ANGLES SHALL BE MADE WITH PROPER FITTINGS. WHEN RESTRAINT OF PIPE-TO-PIPE JOINTS ARE REQUIRED, ALL JOINTS SHALL BE RESTRAINED WITH EXTERNAL SPLIT SERRATED RESTRAINT HARNESSES. SELECT FILL MATERIAL REQUIRED FOR BEDDING AND EMBEDMENT REGARDLESS OF PIPE'S PROXIMITY TO PAVEMENT. PVC C900 PIPE IS NOT ALLOWED FOR PIPES LARGER THAN 12-INCH.
  - FOR DUCTILE IRON PIPE INSTALLATION: THICKNESS CLASS 52 FOR TYPICAL DISTRIBUTION MAINS 12-INCH NOMINAL SIZE AND SMALLER. WHEN RESTRAINT OF PIPE-TO-PIPE JOINTS ARE REQUIRED, PUSH-ON RESTRAINING GASKETS WITH INTEGRAL STAINLESS STEEL LOCKING SEGMENTS ARE PERMITTED ON PIPE-TO-PIPE CONNECTIONS 12-INCH NOMINAL SIZE AND SMALLER ONLY. PIPE-TO-PIPE CONNECTIONS GREATER THAN 12-INCH NOMINAL SIZE SHALL BE RESTRAINED PER SPECIFICATION SECTION 15105.
  - FOR HDPE PIPE INSTALLATION: DIPS DR11 FOR SIZES 4 INCH AND LARGER, IPS DR9 FOR 3 INCH AND CTS DR9 FOR SIZES SMALLER THAN 3 INCH. HDPE BENDS, TEES, AND CROSSES ARE NOT ACCEPTABLE. PRESSURE TESTING OF HDPE PIPE DIFFERS FROM DUCTILE IRON AND PVC PIPE. SEE SPECIFICATION SECTION 15030-3.03. PIPE FUSION MUST BE COMPLETED BY CERTIFIED TECHNICIAN; CERTIFICATION TO BE SUBMITTED PRIOR TO PRECONSTRUCTION MEETING.
  - ENCASE ALL DUCTILE IRON PIPING, DUCTILE IRON FITTINGS, VALVES, HYDRANTS, RESTRAINT HARNESSES, AND ALL OTHER METALLIC APPURTENANCES IN 12MIL BLUE POLYETHYLENE.
  - ALL FIRE HYDRANT LATERALS SHALL BE DUCTILE IRON PIPE.
  - ALL MJ T-BOLTS AND FLANGE BOLTS SHALL HAVE XYLAN OR FLUOROKOTE #1 CORROSION RESISTANT COATING.
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  - THRUST RESTRAINT TO BE ACHIEVED THROUGH THE RESTRAINT OF PIPE JOINTS AND FITTINGS. THRUST BLOCKS ARE NOT AN ACCEPTABLE MEANS OF THRUST RESTRAINT, EXCEPT WHEN REQUIRED IN CONNECTING TO EXISTING WATER MAIN AND FOR INSTALLATION OF FIRE HYDRANTS. SEE SPECIFICATION SECTIONS 15105 AND 15120 FOR PIPE JOINT RESTRAINT REQUIREMENTS FOR DUCTILE IRON AND PVC PIPE.
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  - MAINTAIN MINIMUM COVER DEPTH OF 54" AND A MAXIMUM OF 78".



#### PROFILE LEGEND

- JOINT RESTRAINTS (J.R.)
- EXISTING PROFILE GRADE
- PROPOSED PROFILE GRADE



PROFESSIONAL SEAL

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DWG SIZE: 36" X 24"

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Cooper & Associates, LLC

Engineers - Project Managers  
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WWW.KIMLEY-HORN.COM  
KHA PROJECT # 170509000

**Malarkey Roofing Products**

PROJ. NO. 170509000  
DWG. NO. 2973  
SHEET 0

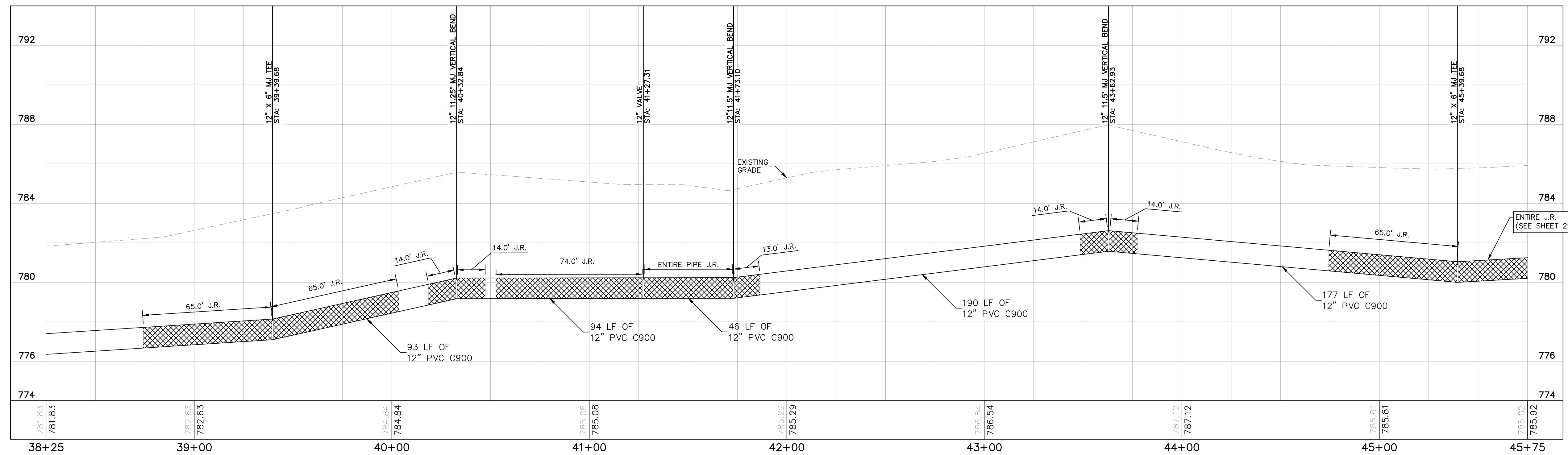
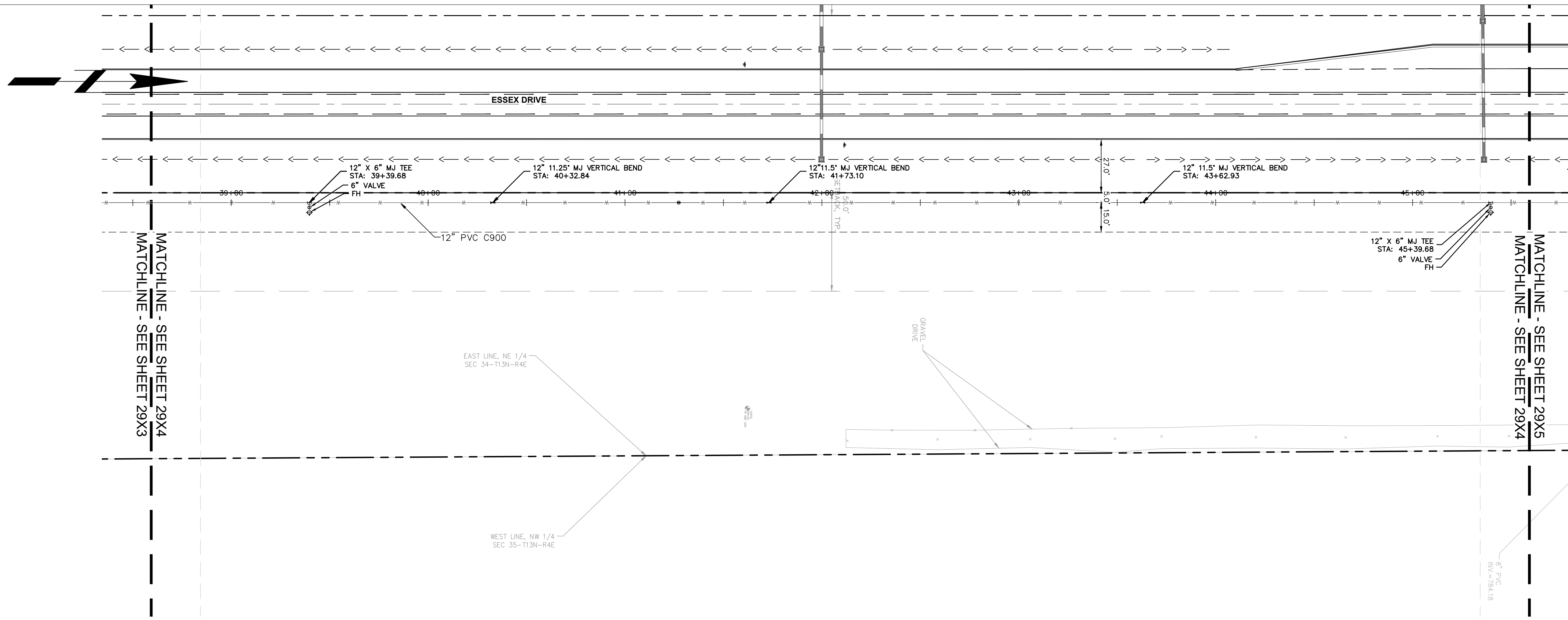
PHASE 2 - FINAL BUILDOUT  
WATER PLAN AND PROFILE

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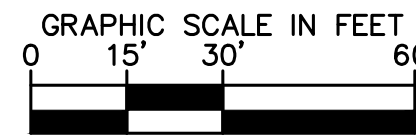
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 WWW.KIMLEY-HORN.COM  
 KHA PROJECT # 170509000

**Malarkey Roofing Products**

PROJ. NO. 170509000  
 DWG. NO. 2974  
 SHEET 0

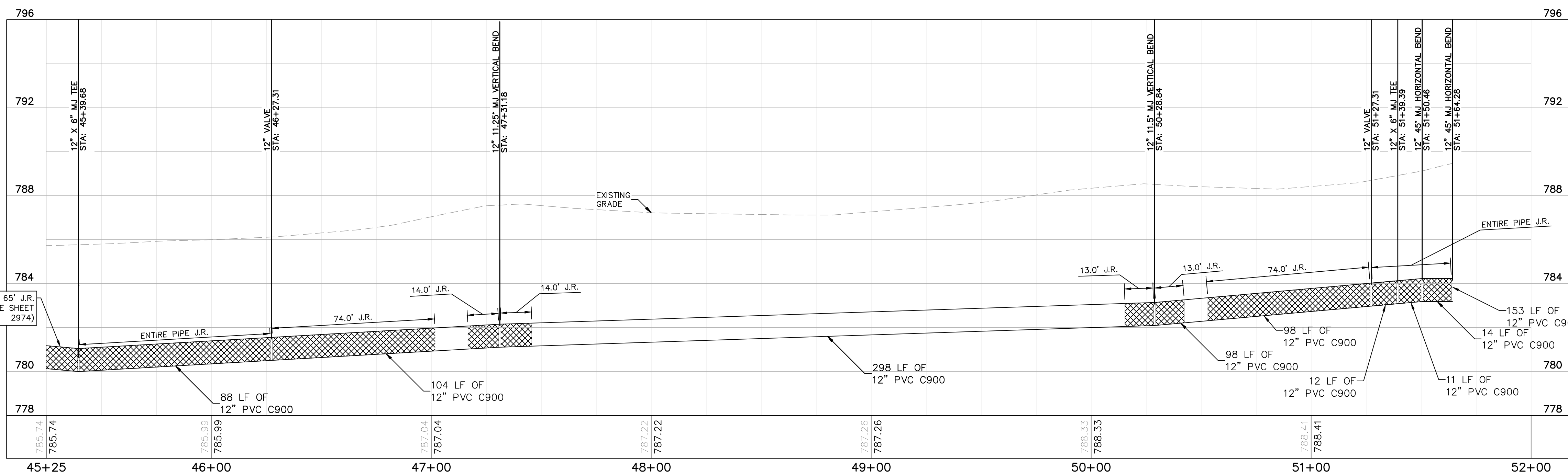
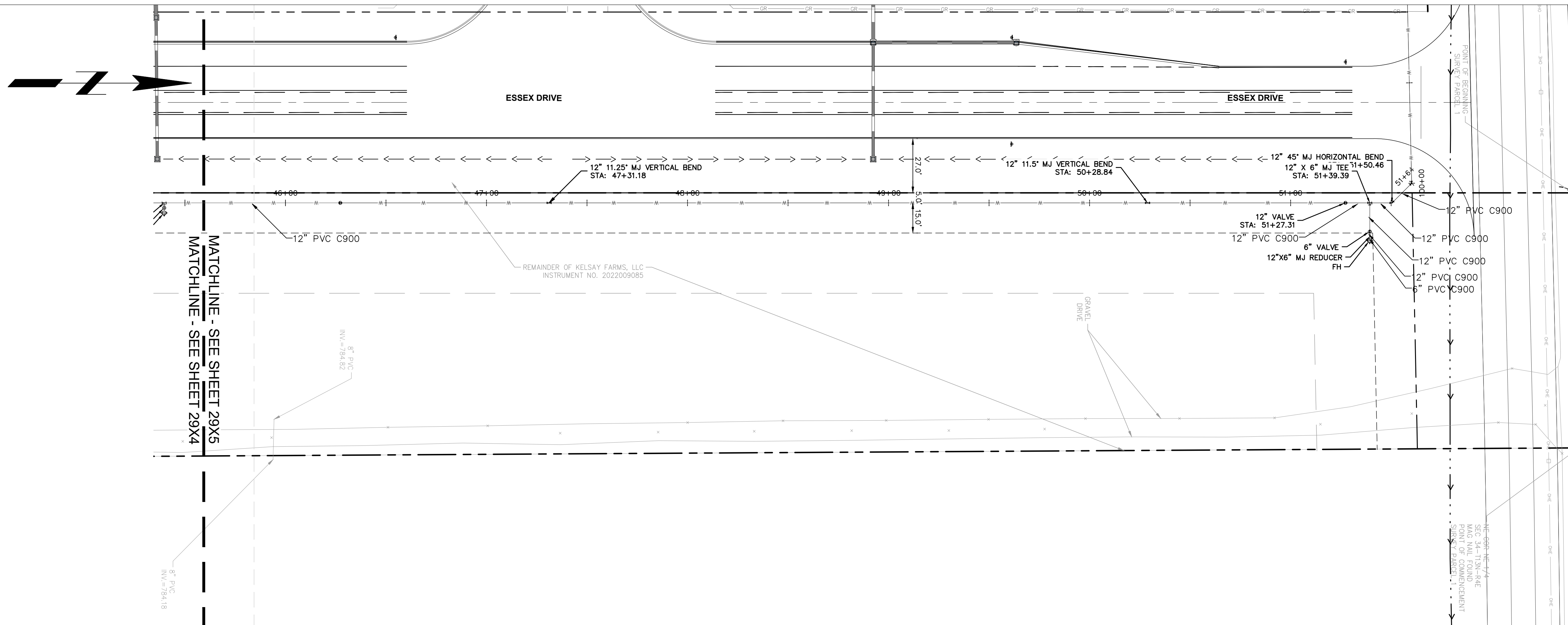
PHASE 2 - FINAL BUILDOUT  
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### WATERMAIN NOTES

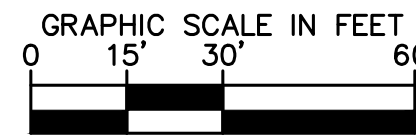
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  - MAINTAIN MINIMUM COVER DEPTH OF 54" AND A MAXIMUM OF 78".



PROPOSED WATER ROADWAY 1  
H: 1"=30 | V: 1"=3

#### PROFILE LEGEND

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PROFESSIONAL SEAL

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SHEET 0

PHASE 2 - FINAL BUILDOUT  
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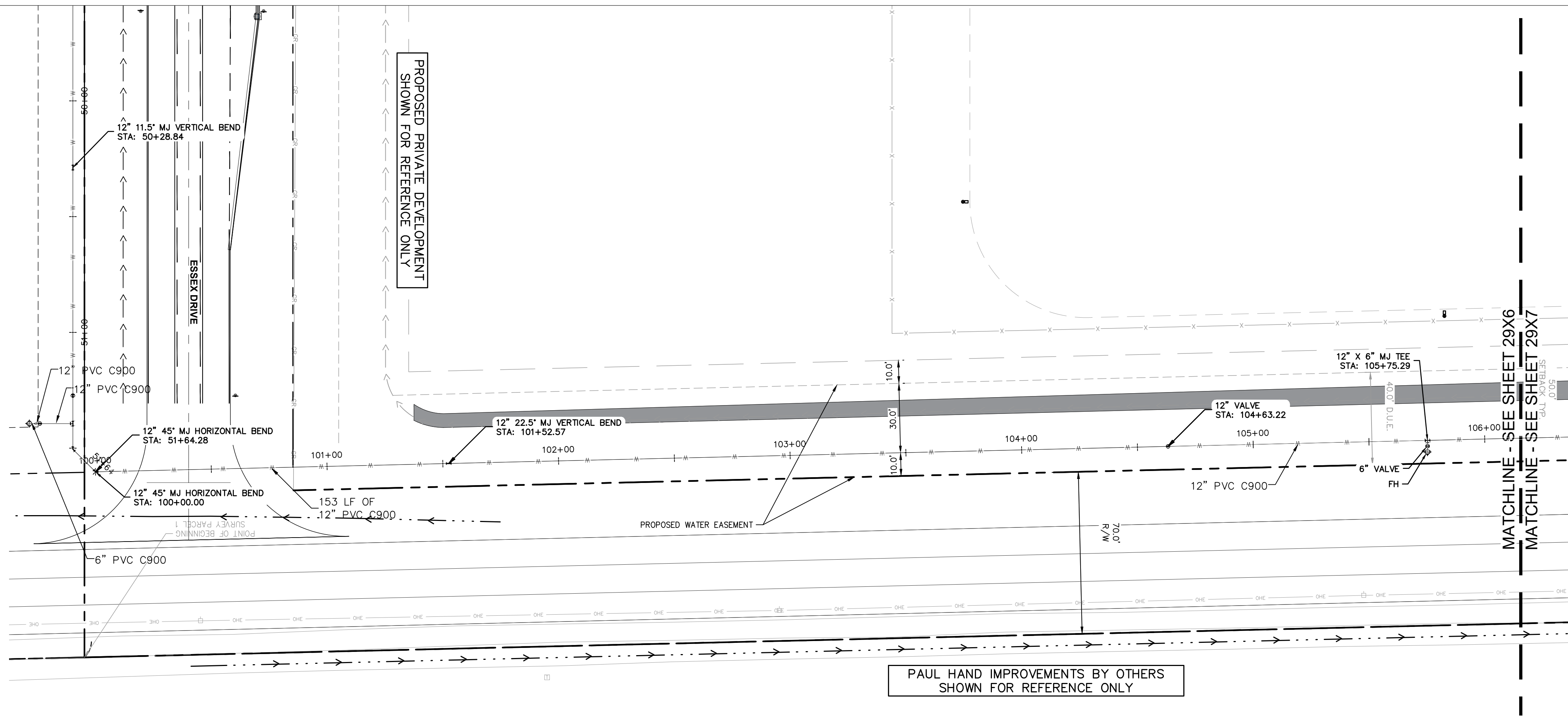
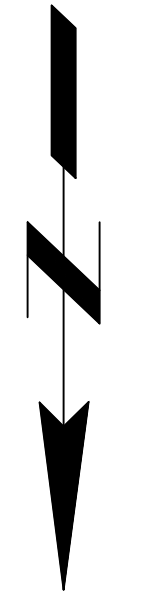
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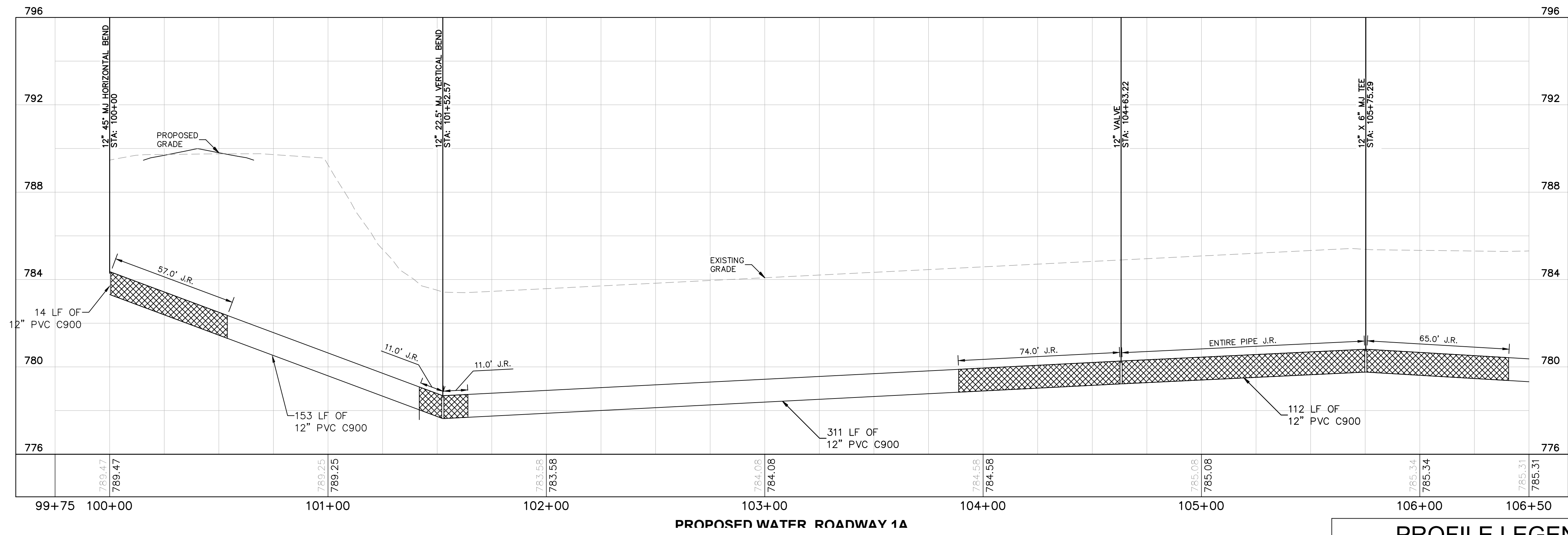


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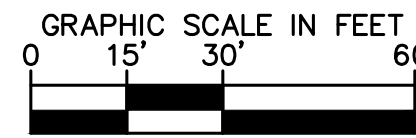
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PAUL HAND IMPROVEMENTS BY OTHERS SHOWN FOR REFERENCE ONLY



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Cooper & Associates, LLC

Engineers - Project Managers  
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SCALE: AS NOTED  
DRWN.: VG  
CHKD.: AMM  
APPD.:  
APPD.:  
DATE : 10/10/24

**Kimley»Horn**  
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KHA PROJECT # 170509000

**Malarkey Roofing Products**

MALARKEY,IND FRANKLIN,IN

PHASE 2 - FINAL BUILDOUT  
WATER PLAN AND PROFILE

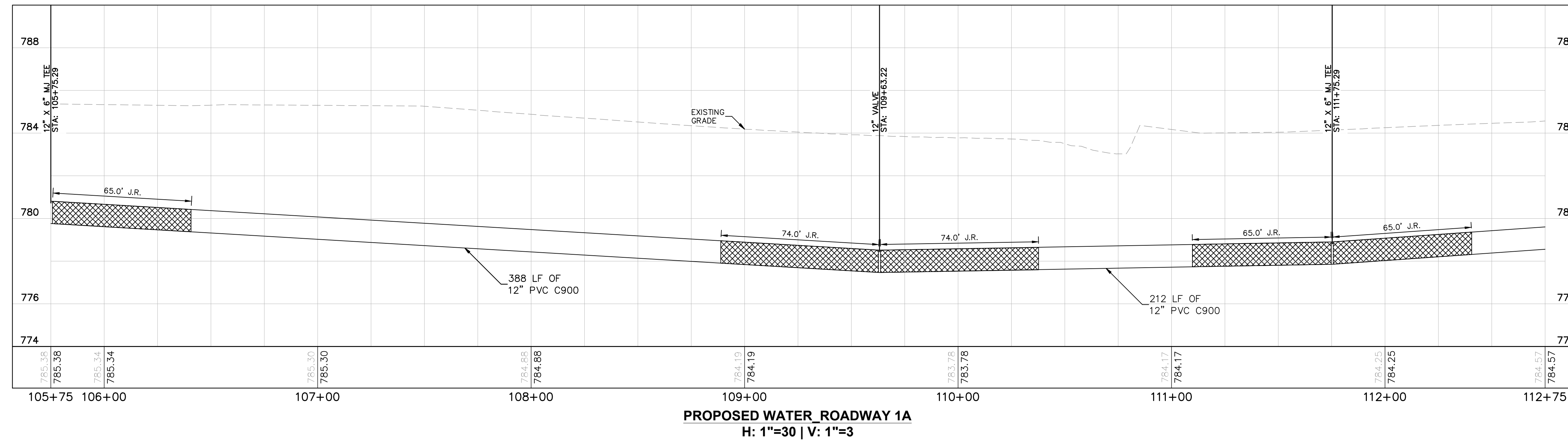
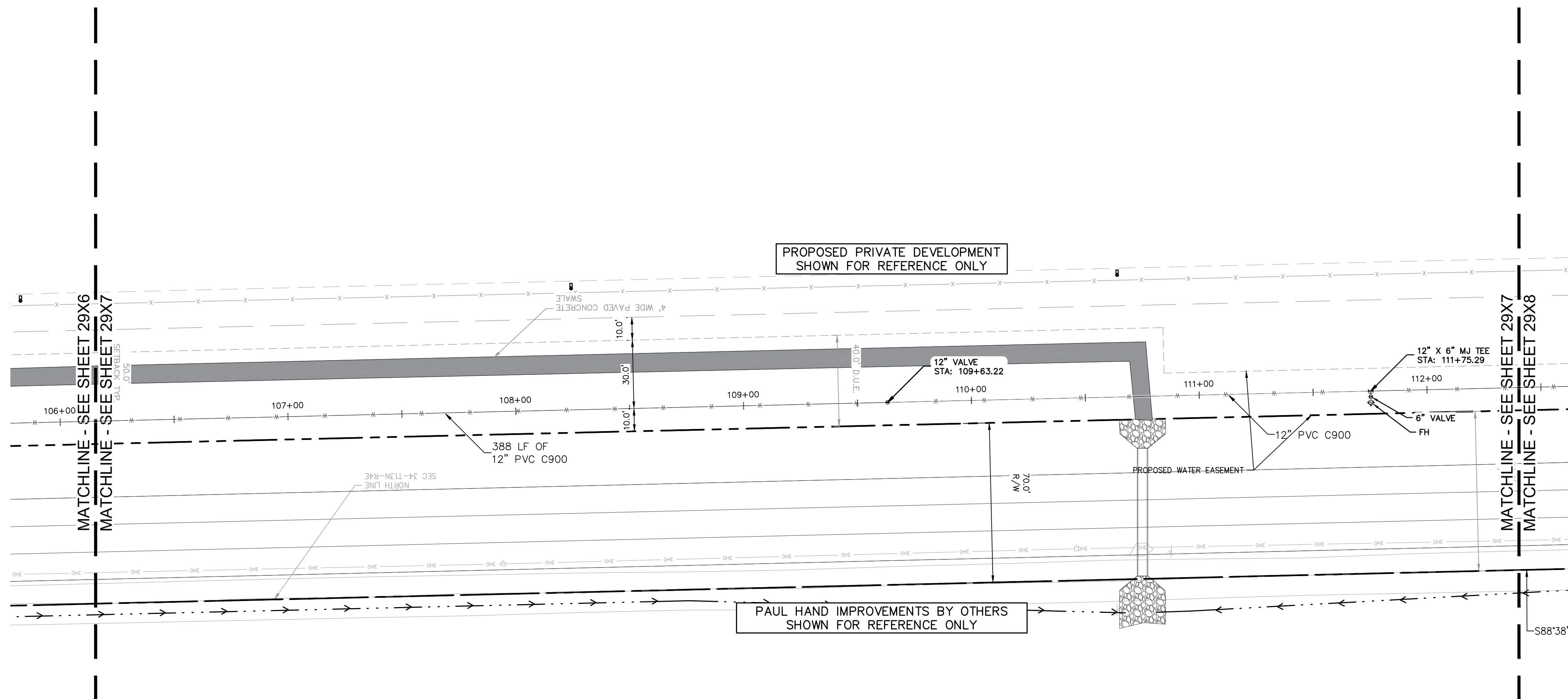
PROJ. NO.	170509000
DWG. NO.	2976
SHEET	0
REV	0

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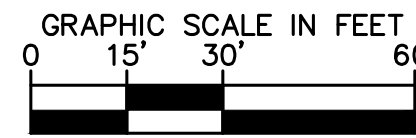
### WATERMAIN NOTES

- WATER UTILITY INSTALLATION NOTES
- INSTALLATION OF WATER MAIN, FITTINGS, VALVES, FIRE HYDRANTS, AND APPURTENANCES SHALL BE IN ACCORDANCE WITH INDIANA AMERICAN WATER STANDARDS AND SPECIFICATIONS, LATEST REVISION.
  - IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION, SIZE AND MATERIAL OF THE EXISTING WATER MAIN PRIOR TO CONSTRUCTION.
  - AT THE POINT OF CONNECTION TO EXISTING WATER MAINS, A TAPPING SLEEVE AND VALVE MAY BE REQUIRED TO BE INSTALLED IF THE EXISTING WATER MAIN CANNOT BE SHUT DOWN WITHOUT IMPACTING CUSTOMERS, TO BE DETERMINED AT THE PRE-CONSTRUCTION MEETING.
  - FOR PVC C900 PIPE INSTALLATION: DR14 PIPE IS REQUIRED. DEFLECTION OF PIPE JOINTS AND BENDING OF PIPES ARE NOT PERMITTED. ALL ANGLES SHALL BE MADE WITH PROPER FITTINGS. WHEN RESTRAINT OF PIPE-TO-PIPE JOINTS ARE REQUIRED, ALL JOINTS SHALL BE RESTRAINED WITH EXTERNAL SPLIT SERRATED RESTRAINT HARNESSSES. SELECT FILL MATERIAL REQUIRED FOR BEDDING AND EMBEDMENT REGARDLESS OF PIPE'S PROXIMITY TO PAVEMENT. PVC C900 PIPE IS NOT ALLOWED FOR PIPES LARGER THAN 12-INCH.
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  - FOR HDPE PIPE INSTALLATION: DIPS DR11 FOR SIZES 4 INCH AND LARGER, IPS DR9 FOR 3 INCH. AND CTS DR9 FOR SIZES SMALLER THAN 3 INCH. HDPE BENDS, TEES, AND CROSSES ARE NOT ACCEPTABLE. PRESSURE TESTING OF HDPE PIPE DIFFERS FROM DUCTILE IRON AND PVC PIPE, SEE SPECIFICATION SECTION 15030-3.03. PIPE FUSION MUST BE COMPLETED BY CERTIFIED TECHNICIAN; CERTIFICATION TO BE SUBMITTED PRIOR TO PRECONSTRUCTION MEETING.
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  - ALL FIRE HYDRANT LATERALS SHALL BE DUCTILE IRON PIPE.
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  - SELECT FILL MATERIAL REQUIRED FOR FINAL BACKFILL WHEN WITHIN 5-FEET OF PAVEMENT PER SPECIFICATION SECTION 02210.
  - MAINTAIN THE REQUIRED 10-FEET OF HORIZONTAL SEPARATION AND 18-INCHES OF VERTICAL SEPARATION FROM SANITARY AND STORM SEWERS. MAINTAIN 8- FEET OF HORIZONTAL SEPARATION FROM SANITARY AND STORM STRUCTURES. SEE 327 IAC 8-3.2-9 OF THE INDIANA ADMINISTRATIVE CODE FOR MORE INFORMATION.
  - MAINTAIN MINIMUM COVER DEPTH OF 54" AND A MAXIMUM OF 78".



#### PROFILE LEGEND

- JOINT RESTRAINTS (JR)
- EXISTING PROFILE GRADE
- PROPOSED PROFILE GRADE



PROFESSIONAL SEAL

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DWG SIZE: 36" X 24"

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KHA PROJECT # 170509000

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MALARKEY,IND FRANKLIN,IN

PHASE 2 - FINAL BUILDOUT  
WATER PLAN AND PROFILE

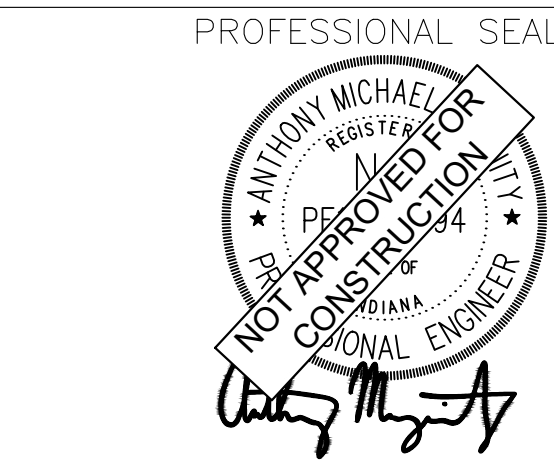
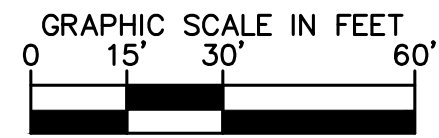
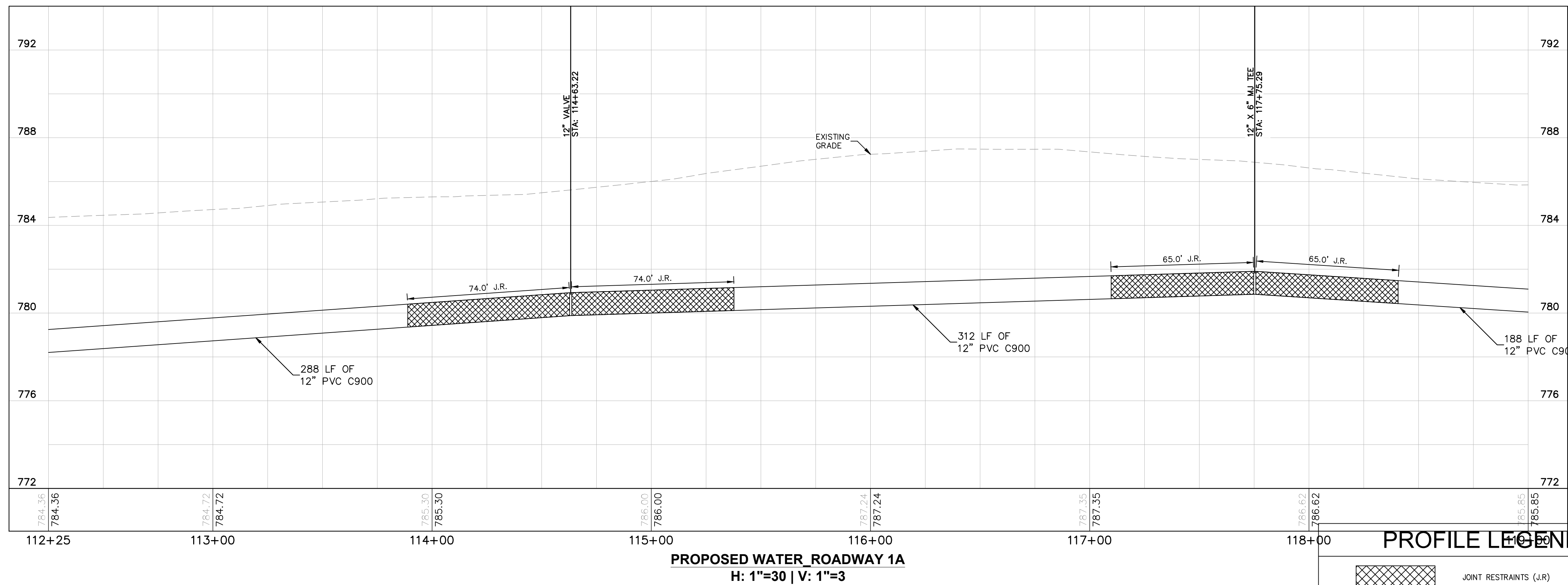
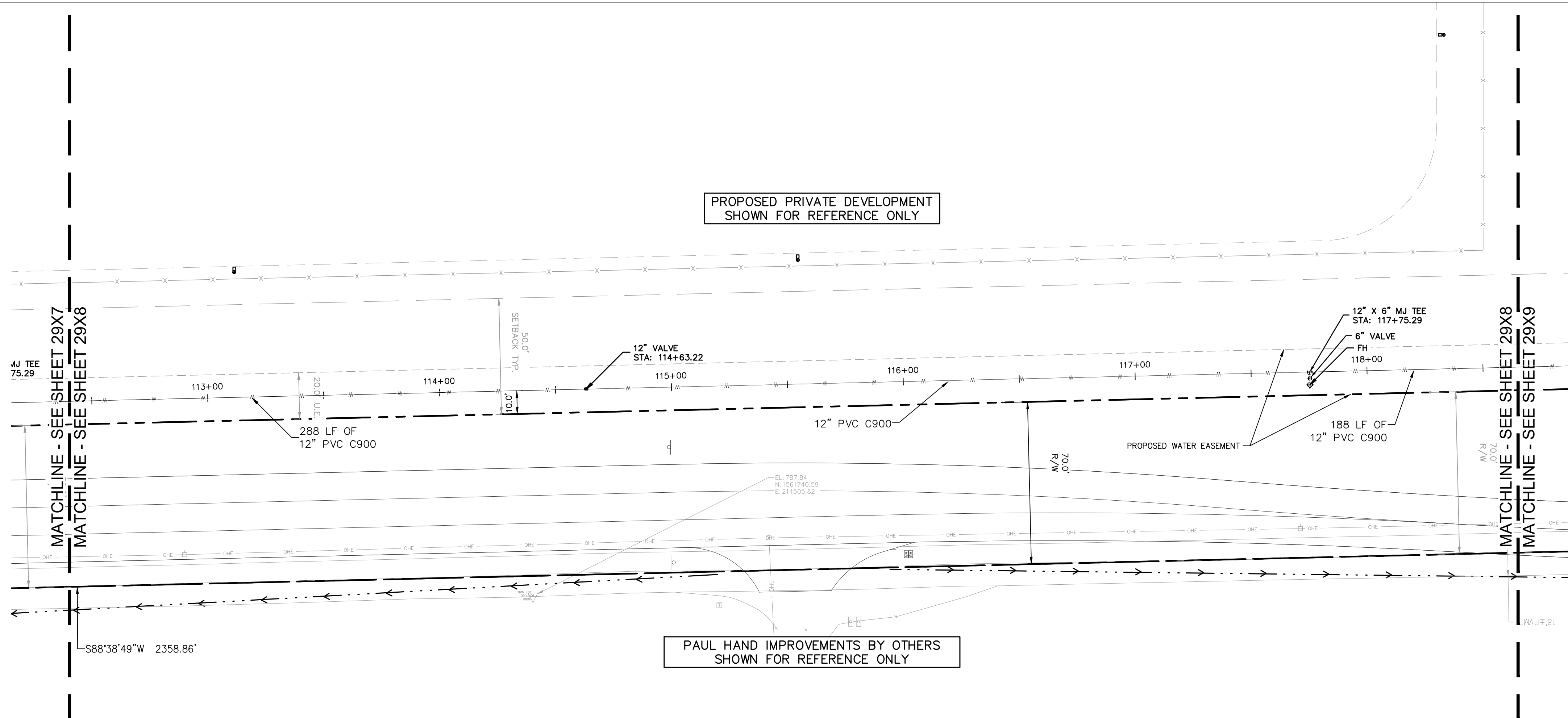
PROJ. NO. 170509000  
DWG. NO. 2977  
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**Malarkey Roofing Products**

PROJ. NO. 170509000  
 DWG. NO. 2978  
 SHEET 0

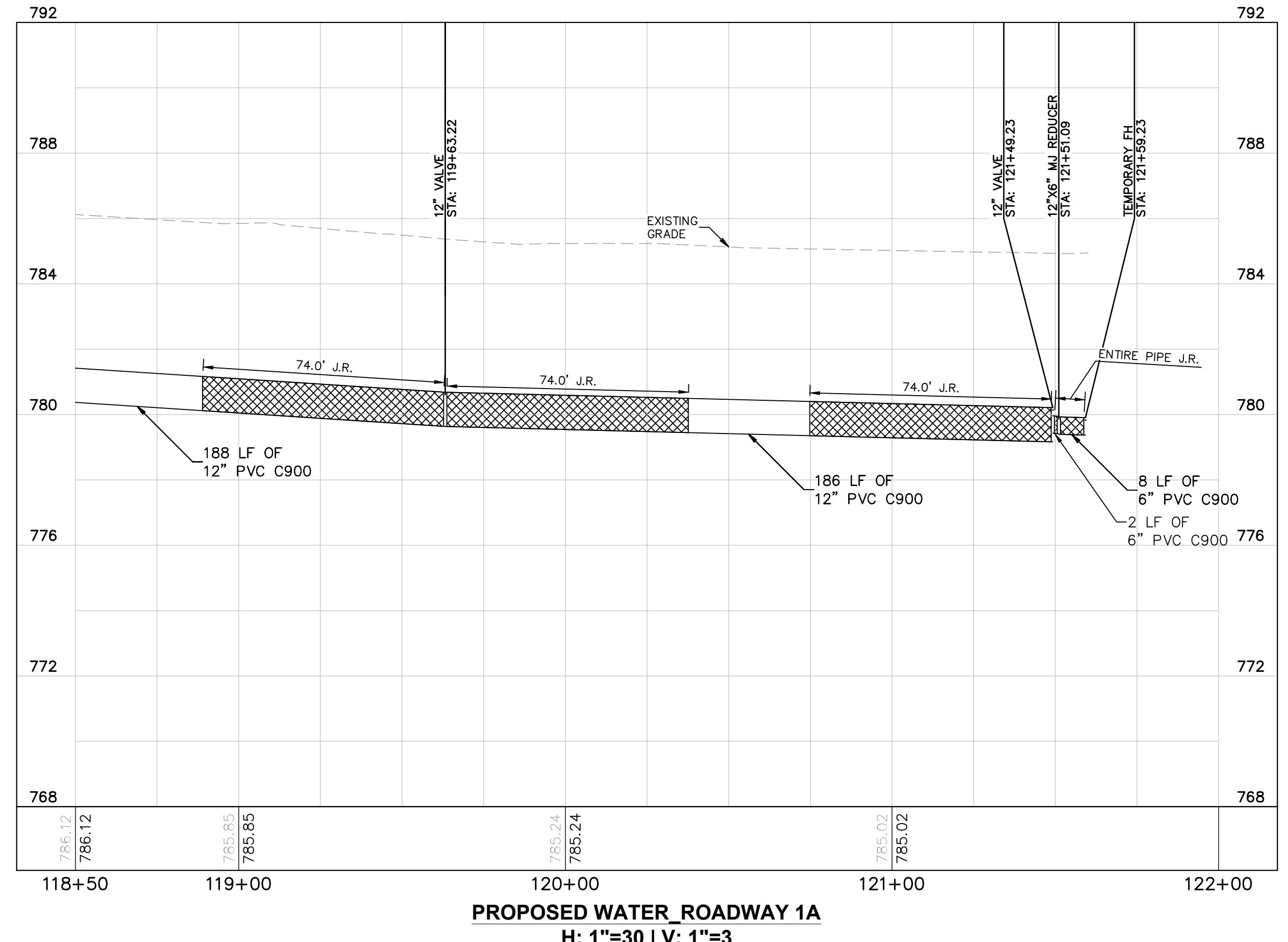
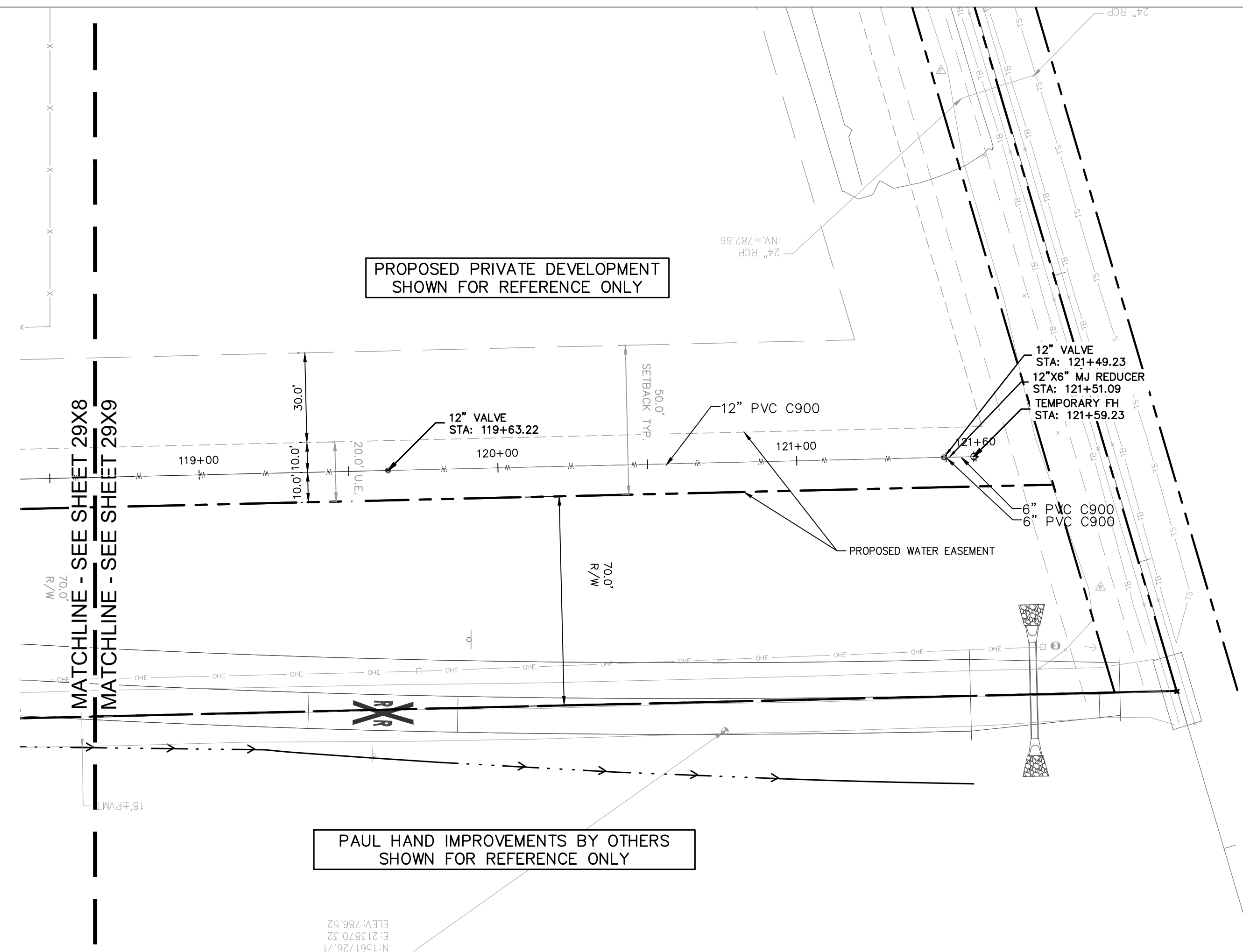
PHASE 2 - FINAL BUILDOUT  
 WATER PLAN AND PROFILE

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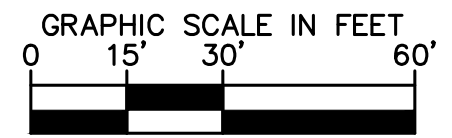


#### PROFILE LEGEND

	JOINT RESTRAINTS (J.R)
	EXISTING PROFILE GRADE
	PROPOSED PROFILE GRADE

### Kimley»Horn

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PROFESSIONAL SEAL

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MALARKEY,IND FRANKLIN,IN

TITLE - PHASE 2 - FINAL BUILDOUT WATER PLAN AND PROFILE

PROJ. NO.	170509000
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SANITARY SEWER STRUCTURE DATA TABLE											
STR. NO:	STRUCTURE/CASTING TYPE NOTE: NEENAH CASTINGS	T.O.R.	INCOMING PIPE DATA (DIRECTION) [FROM STR]	OUTGOING PIPE DATA (DIRECTION) [TO STR]	OUTGOING PIPE L.F.	OUTGOING PIPE SIZE	OUTGOING GRADE (%)	CONNECT TO STRUCTURE	REMARKS	NORTHING	EASTING
EX-1	EXISTING SAN MH	772.39	8" PVC SDR 35 757.40 (N) [S1]							1557556.54	216035.17
S1	48" SAN MH	771.24	8" PVC SDR 35 759.18 (N) [S2]	8" PVC SDR 35 759.08 (S) [EX-1]	400'	8"	0.42%	EX-1		1557956.41	216015.01
S2	48" SAN MH	772.97	8" PVC SDR 35 760.46 (N) [S3]	8" PVC SDR 35 760.36 (S) [S1]	280'	8"	0.42%	S1		1558235.99	216013.35
S3	48" SAN MH	773.96	8" PVC SDR 35 760.84 (NW) [S4]	8" PVC SDR 35 760.74 (S) [S2]	67'	8"	0.42%	S2		1558299.47	215990.78
S4	48" SAN MH	774.92	8" PVC SDR 35 761.76 (N) [S5]	8" PVC SDR 35 761.66 (SE) [S3]	195'	8"	0.42%	S3		1558473.11	215901.67
S5	48" SAN MH	772.98	8" PVC SDR 35 762.61 (N) [S6]	8" PVC SDR 35 762.51 (S) [S4]	178'	8"	0.42%	S4		1558647.81	215865.50
S6	48" SAN MH	776.85	8" PVC SDR 35 764.09 (N) [S7]	8" PVC SDR 35 763.99 (S) [S5]	330'	8"	0.42%	S5		1558977.48	215865.49
S7	48" SAN MH	778.25	8" PVC SDR 35 765.24 (N) [S8]	8" PVC SDR 35 765.14 (S) [S6]	250'	8"	0.42%	S6		1559227.48	215865.49
S8	48" SAN MH	777.81	8" PVC SDR 35 765.97 (N) [S9]	8" PVC SDR 35 765.87 (S) [S7]	150'	8"	0.42%	S7		1559377.48	215865.49
S9	48" SAN MH	779.85	8" PVC SDR 35 767.75 (N) [S10]	8" PVC SDR 35 767.65 (S) [S8]	400'	8"	0.42%	S8		1559777.48	215865.48
S10	48" SAN MH	780.97		8" PVC SDR 35 769.15 (S) [S9]	334'	8"	0.42%	S9		1560111.22	215865.48

STORM SEWER STRUCTURE DATA TABLE NOTE: DEBRIS GUARD REQUIRED ON ALL END SECTIONS ALL CASTINGS SHALL BE LABELED "DUMP NO WASTE-DRAINS TO WATERWAY"											
STR. NO:	STRUCTURE/CASTING TYPE NOTE: NEENAH CASTINGS	T.O.R.	INCOMING PIPE DATA (DIRECTION) [FROM STR]	OUTGOING PIPE DATA (DIRECTION) [TO STR]	OUTGOING PIPE L.F.	OUTGOING PIPE SIZE	OUTGOING GRADE (%)	CONNECT TO STRUCTURE	REMARKS	NORTHING	EASTING
D3	FLARED END SECTION		24" RCP CL III 771.00 (E) [D4]							1558632.65	215784.72
D4	FLARED END SECTION			24" RCP CL III 771.38 (W) [D3]	76'	24"	0.50%	D3		1558633.85	215860.72
D5	FLARED END SECTION		15" RCP CL III 771.93 (E) [D6]							1558634.15	215877.70
D6	FLARED END SECTION			15" RCP CL III 772.17 (W) [D5]	61'	15"	0.38%	D5		1558635.83	215938.58
D9	FLARED END SECTION		15" RCP CL III 772.50 (E) [D10]							1559340.14	215794.49
D10	TYPE "A" INLET - R-3472	776.76	12" RCP CL III 772.91 (E) [D11]	15" RCP CL III 772.91 (W) [D9]	81'	15"	0.50%	D9		1559339.88	215875.49
D11	TYPE "A" INLET - R-3472	775.79		12" RCP CL III 773.23 (W) [D10]	65'	12"	0.50%	D10		1559339.86	215940.49
D12	FLARED END SECTION		15" RCP CL III 773.00 (E) [D13]							1560019.36	215794.48
D13	TYPE "A" INLET - R-3472	780.67	12" RCP CL III 775.81 (E) [D14]	15" RCP CL III 774.66 (W) [D12]	83'	15"	2.00%	D12		1560019.35	215877.54
D14	TYPE "A" INLET - R-3472	779.40		12" RCP CL III 776.13 (W) [D13]	63'	12"	0.50%	D13		1560019.34	215940.48
D17	FLARED END SECTION		15" RCP CL III 774.00 (E) [D18]							1560328.50	215774.48
D18	TYPE "A" INLET - R-3472	781.61	12" RCP CL III 775.95 (E) [D19]	15" RCP CL III 775.55 (W) [D17]	103'	15"	1.50%	D17		1560328.50	215877.57
D19	TYPE "A" INLET - R-3472	780.73		12" RCP CL III 776.51 (W) [D18]	56'	12"	1.00%	D18		1560328.50	215933.49
D20	FLARED END SECTION		15" RCP CL III 774.00 (E) [D21]							1560725.46	215774.47
D21	TYPE "A" INLET - R-3472	783.95	12" RCP CL III 779.64 (E) [D22]	15" RCP CL III 775.55 (W) [D20]	103'	15"	1.50%	D20		1560725.44	215877.64
D22	TYPE "A" INLET - R-3472	784.16		12" RCP CL III 780.20 (W) [D21]	56'	12"	1.00%	D21		1560725.43	215933.57
D23	FLARED END SECTION		18" RCP CL III 774.50 (E) [D24]							1561059.40	215774.47
D24	TYPE "A" INLET - R-3472	784.17	12" RCP CL III 780.71 (E) [D25]	18" RCP CL III 776.28 (W) [D23]	89'	18"	2.00%	D23		1561061.28	215863.23
D25	TYPE "A" INLET - R-3472	784.91		12" RCP CL III 781.06 (W) [D24]	70'	12"	0.50%	D24		1561061.89	215933.65
D28	FLARED END SECTION		15" RCP CL III 776.90 (E) [D29]							1561418.01	215820.46

STORM SEWER STRUCTURE DATA TABLE NOTE: DEBRIS GUARD REQUIRED ON ALL END SECTIONS ALL CASTINGS SHALL BE LABELED "DUMP NO WASTE-DRAINS TO WATERWAY"											
STR. NO:	STRUCTURE/CASTING TYPE NOTE: NEENAH CASTINGS	T.O.R.	INCOMING PIPE DATA (DIRECTION) [FROM STR]	OUTGOING PIPE DATA (DIRECTION) [TO STR]	OUTGOING PIPE L.F.	OUTGOING PIPE SIZE	OUTGOING GRADE (%)	CONNECT TO STRUCTURE	REMARKS	NORTHING	EASTING
D29	TYPE "A" INLET - R-3010	786.63	12" RCP CL III 781.46 (E) [D30] 12" RCP CL III 781.50 (N) [D31]	15" RCP CL III 777.47 (W) [D28]	55'	15"	1.04%	D28		1561418.01	215875.48
D30	TYPE "A" INLET - R-3472	785.25		12" RCP CL III 781.74 (W) [D29]	58'	12"	0.48%	D29		1561418.00	215933.72
D31	TYPE "A" INLET - R-3010	783.88		12" RCP CL III 782.21 (S) [D29]	71'	12"	1.00%	D29		1561489.17	215875.48

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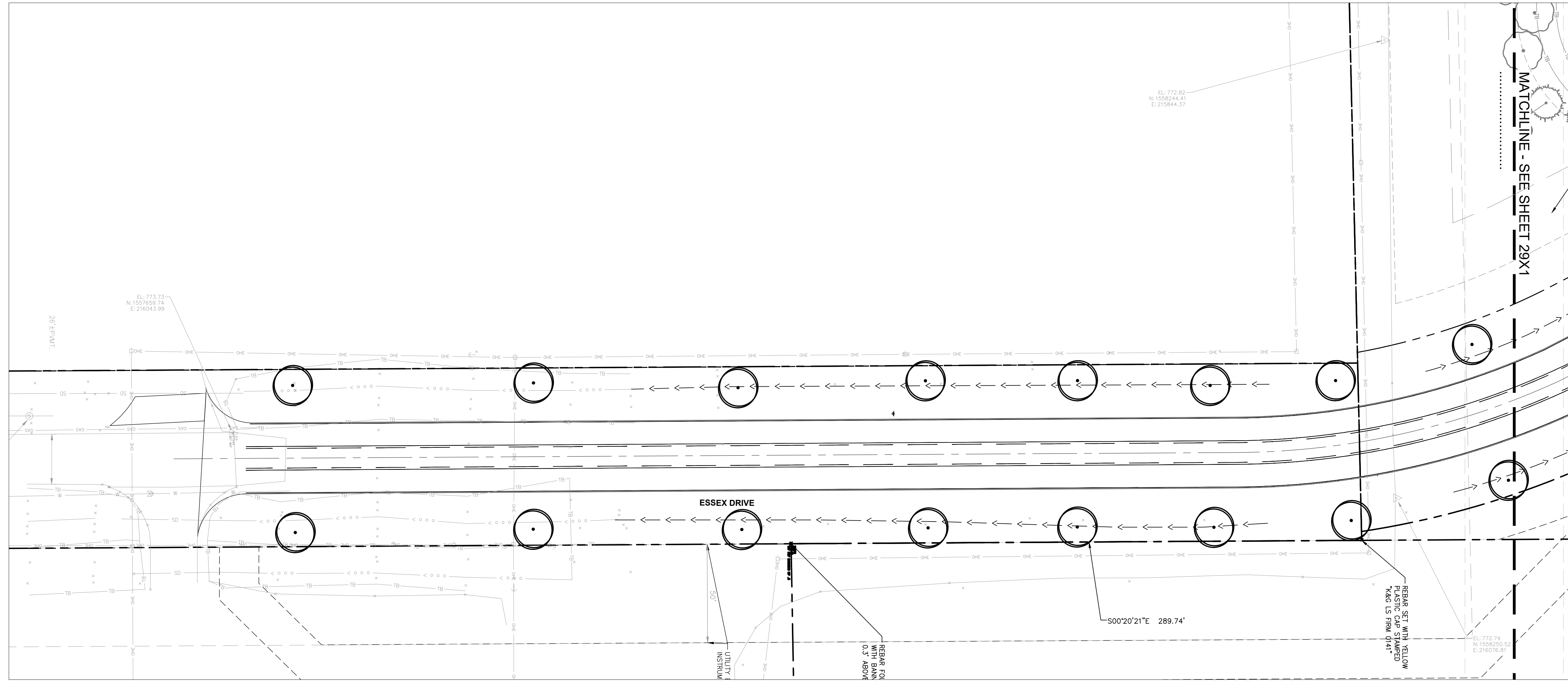
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MALARKEY,IND FRANKLIN,IN  
TITLE- PHASE 2 - FINAL BUILDOUT  
STRUCTURE TABLE

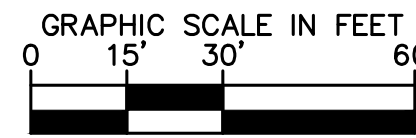
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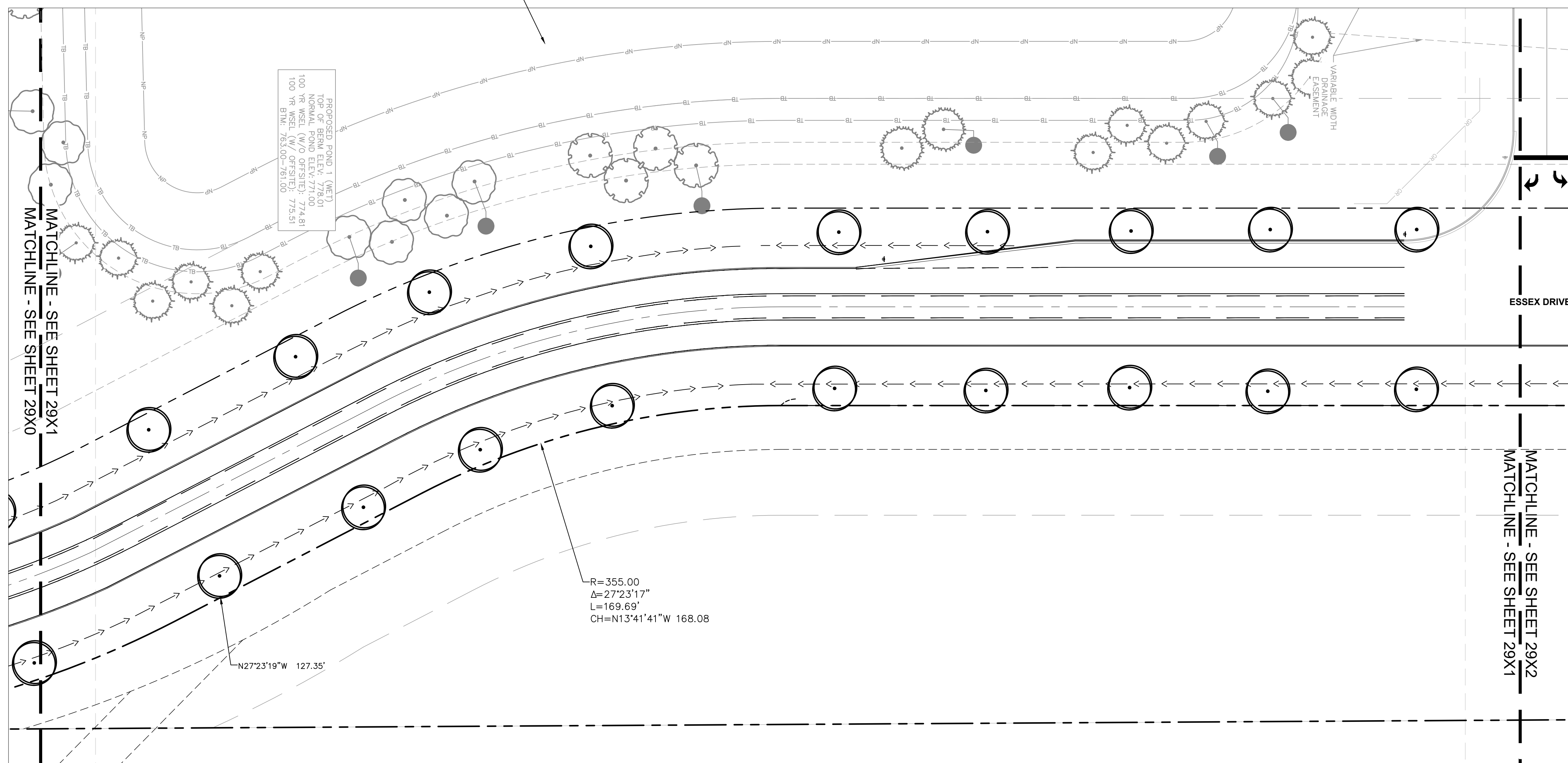
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PHASE 2 - FINAL BUILDOUT  
LANDSCAPE PLAN

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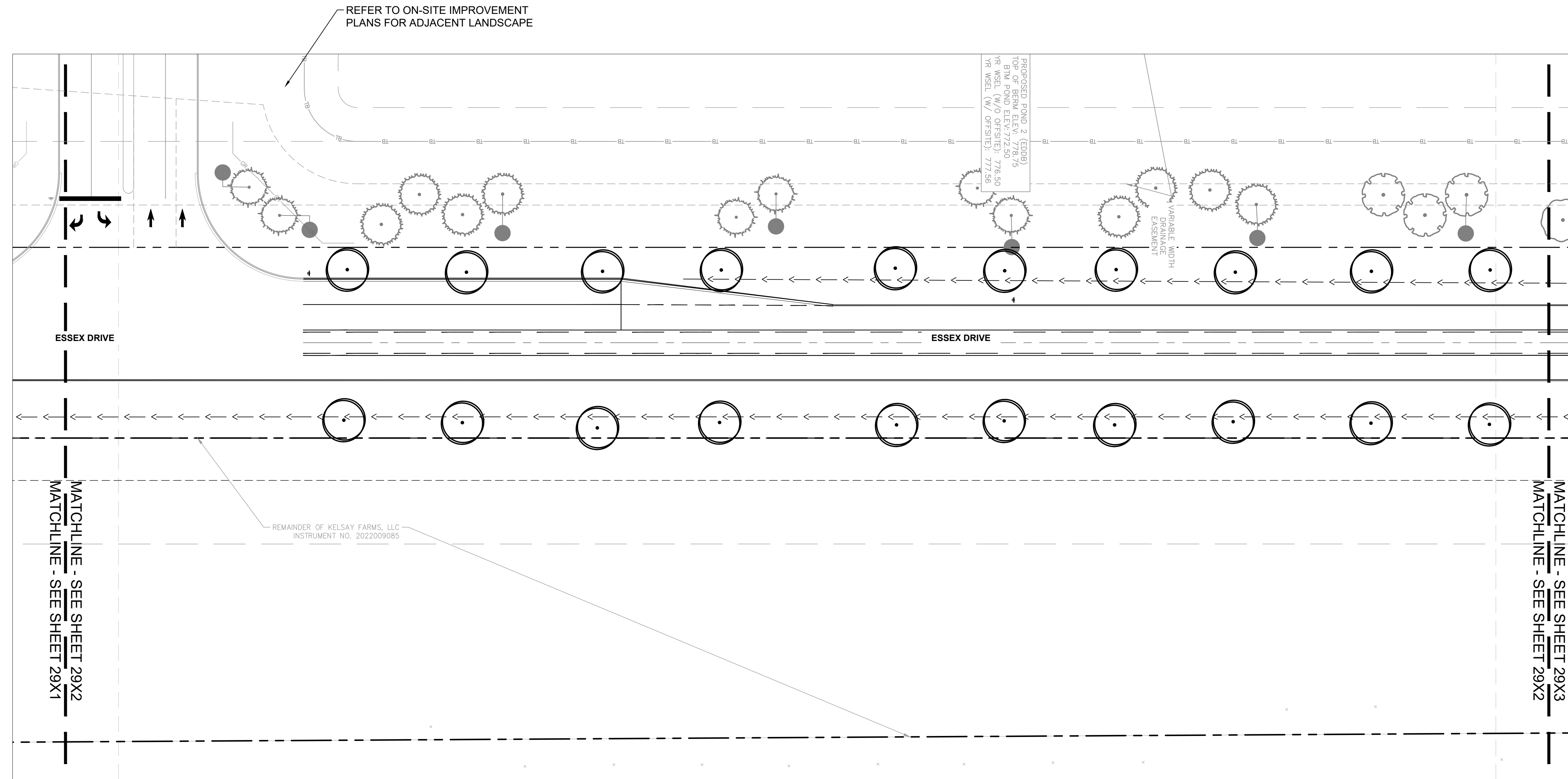
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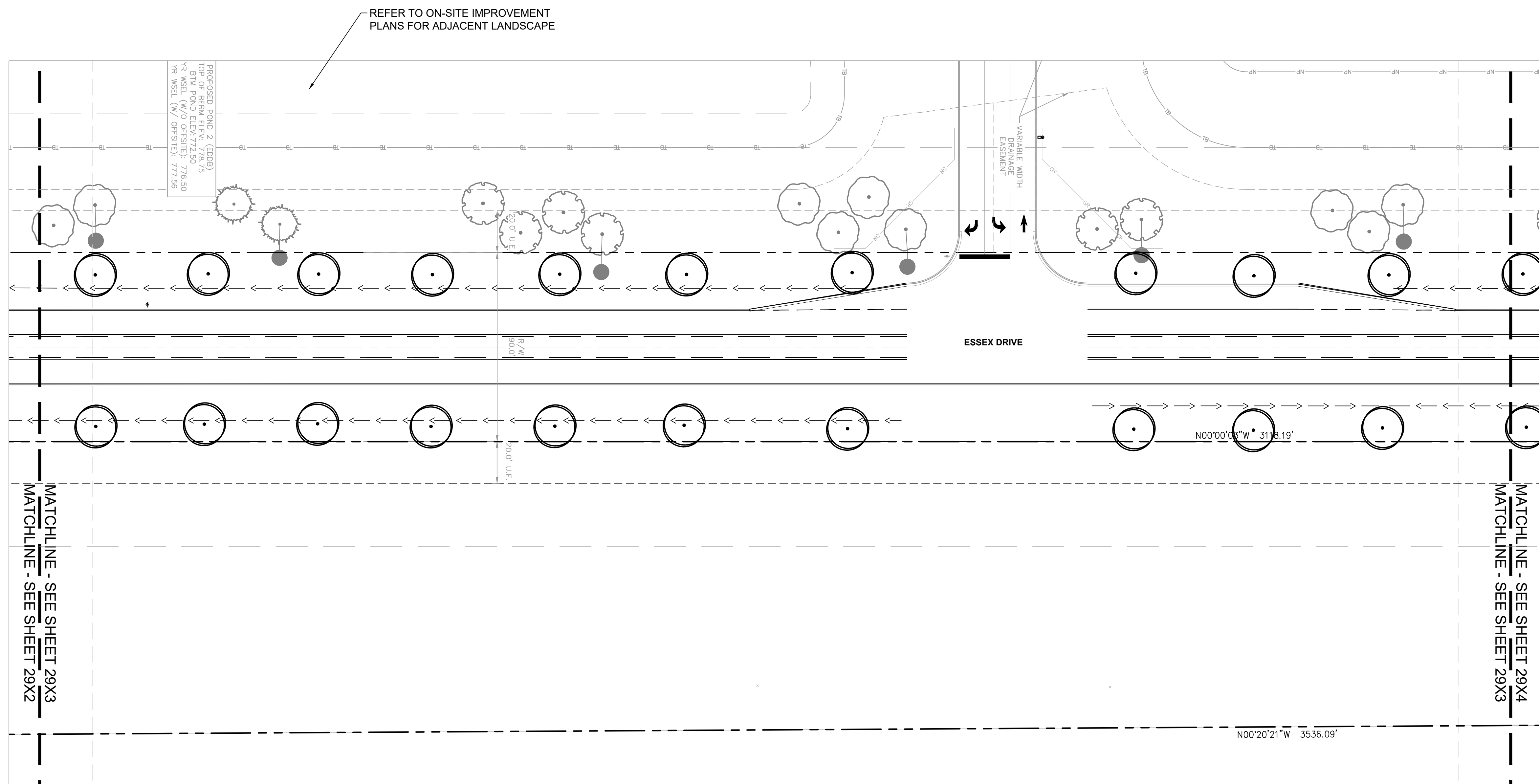
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PHASE 2 - FINAL BUILDOUT  
 LANDSCAPE PLAN

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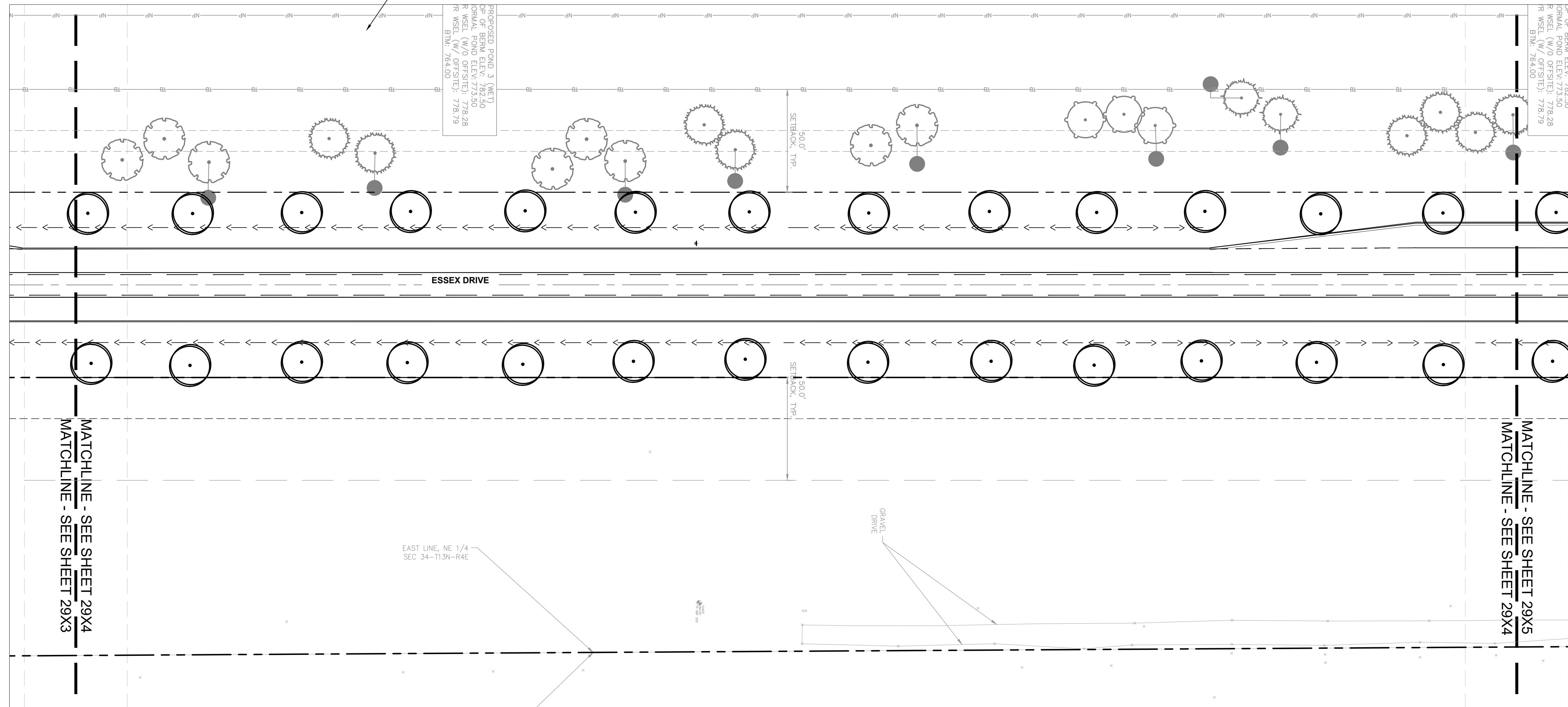
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PHASE 2 – FINAL BUILDOUT  
LANDSCAPE PLAN

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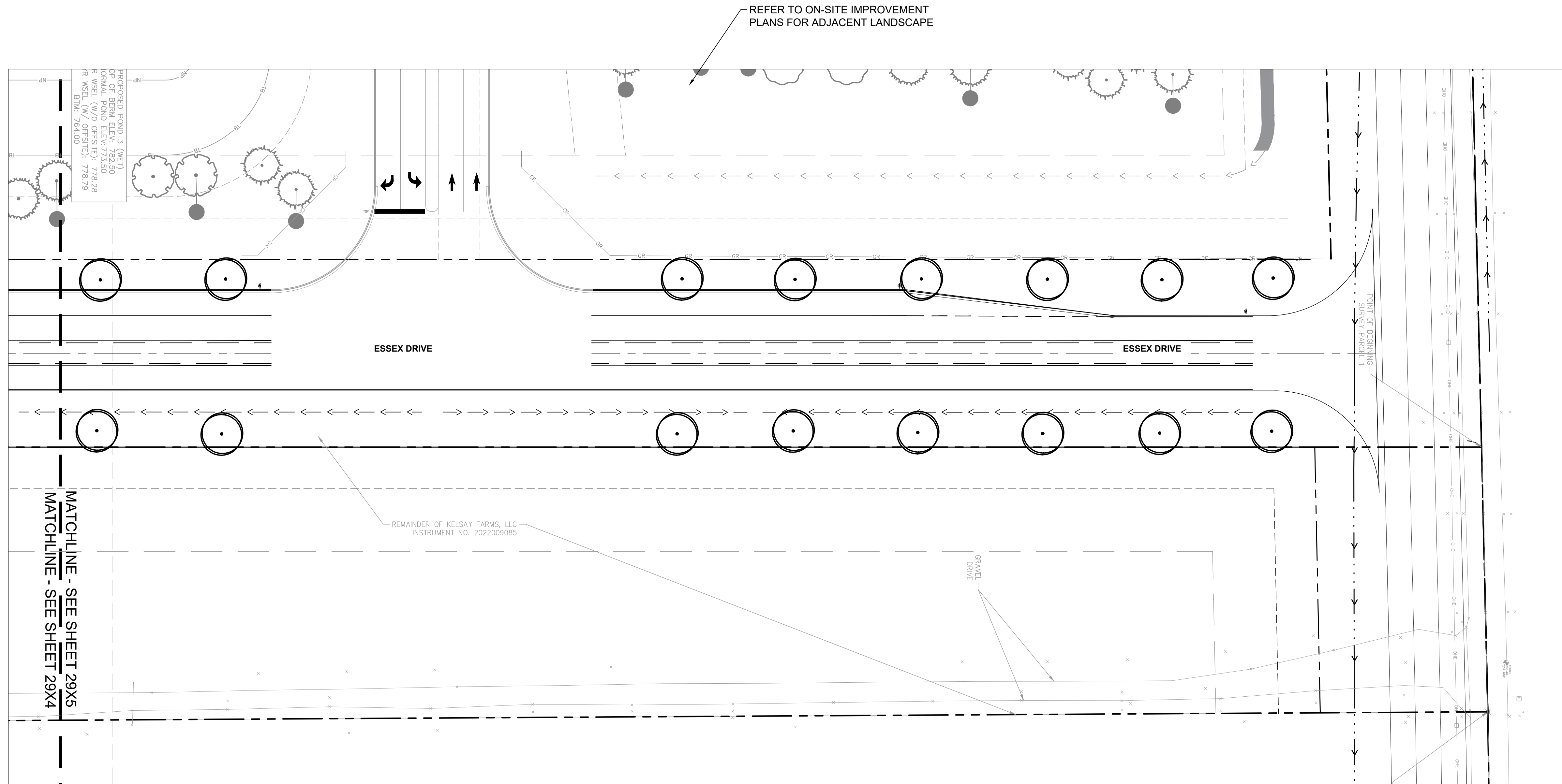
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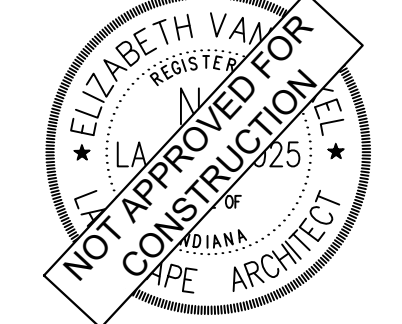
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*Elizabeth Van Sledright*

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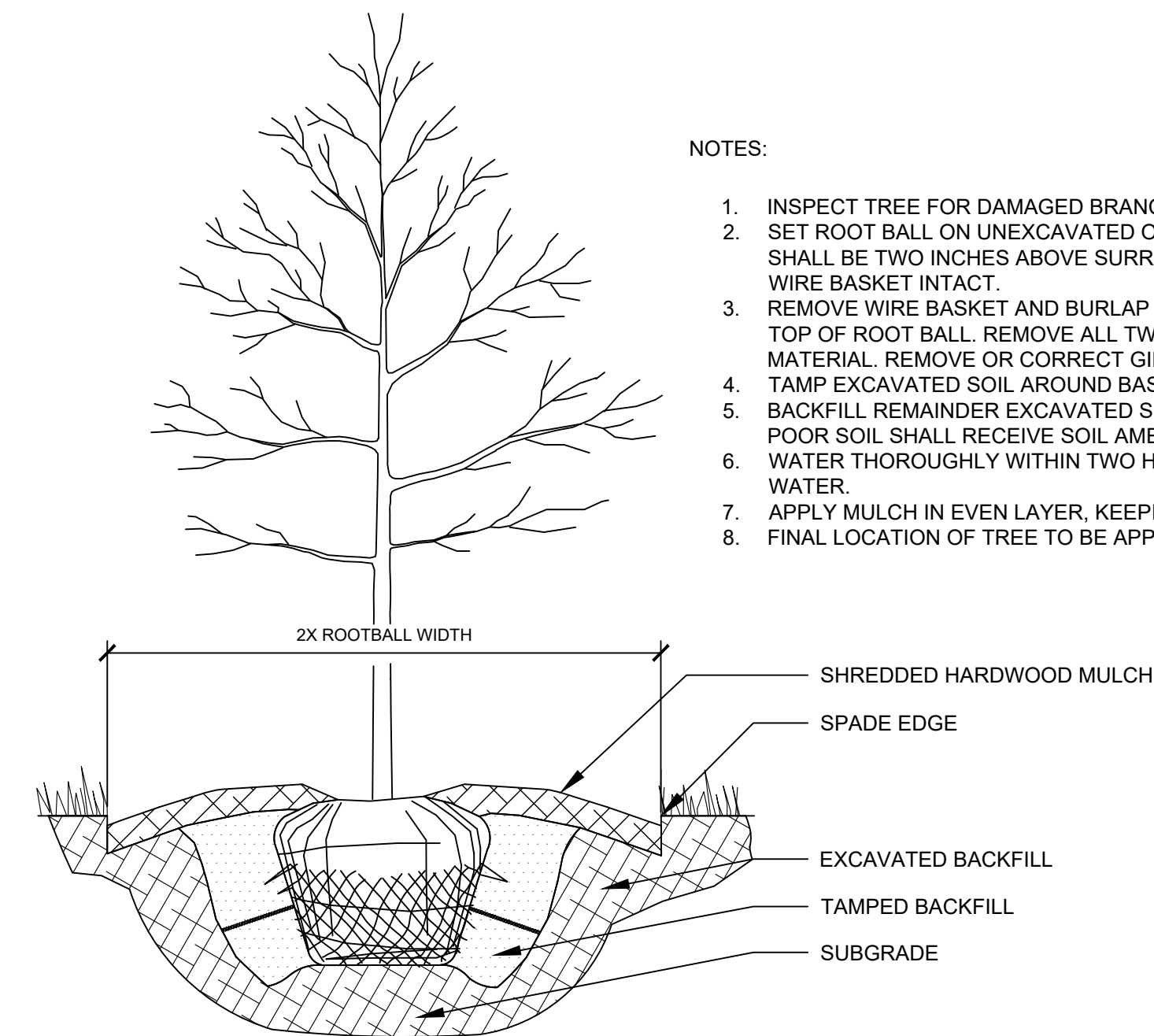
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LANDSCAPE PLAN

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### LANDSCAPE NOTES

- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING MATERIALS AND PLANTS SHOWN ON THE LANDSCAPE PLAN. THE CONTRACTOR IS RESPONSIBLE FOR THE COST TO REPAIR UTILITIES, ADJACENT LANDSCAPE, PUBLIC AND PRIVATE PROPERTY THAT IS DAMAGED BY THE CONTRACTOR OR THEIR SUBCONTRACTOR'S OPERATIONS DURING INSTALLATION OR DURING THE SPECIFIED MAINTENANCE PERIOD. CALL FOR UTILITY LOCATIONS PRIOR TO ANY EXCAVATION AND PLANTING.
- THE CONTRACTOR SHALL REPORT ANY DISCREPANCY IN PLAN VS. FIELD CONDITIONS IMMEDIATELY TO THE LANDSCAPE ARCHITECT, PRIOR TO CONTINUING WITH THAT PORTION OF WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY OF THEIR TRENCHES OR EXCAVATIONS THAT SETTLE.
- ALL NURSERY STOCK SHALL BE WELL BRANCHED, HEALTHY, FULL, PRE-INOCULATED AND FERTILIZED. DECIDUOUS TREES SHALL BE FREE OF FRESH SCARS. TRUNKS WILL BE WRAPPED IF NECESSARY TO PREVENT SUN SCALD AND INSECT DAMAGE. THE LANDSCAPE CONTRACTOR SHALL REMOVE THE WRAP AT THE PROPER TIME AS A PART OF THIS CONTRACT.
- ALL NURSERY STOCK SHALL BE GUARANTEED, BY THE CONTRACTOR, FOR ONE YEAR FROM DATE OF FINAL INSPECTION.
- PLANTING AREA SOIL SHALL BE TOPSOIL FOR ALL TREE, SHRUB, ORNAMENTAL GRASS, PERENNIAL, AND ANNUAL BEDS. AMENDED SOIL SHALL BE PROVIDED AND GRADED BY THE GENERAL CONTRACTOR UP TO A 6" DEPTH BELOW FINISHED GRADE IN TURF AREAS AND A 12" DEPTH IN PLANTING AREAS.
- PLANTING AREA TOPSOIL SHALL BE AMENDED WITH 25% SPHAGNUM PEATMOSS, 5% HUMUS AND 65% PULVERIZED SOIL. AMENDED TURF AREA SOIL SHALL BE STANDARD TOPSOIL. TOPSOIL SHALL CONFORM TO TECHNICAL SPECIFICATIONS FREE OF HEAVY CLAY, ROCKS, AND DIRT CLOUDS OVER 1 INCH IN DIAMETER, AS WELL AS CONTAIN 3%-5% OF ORGANIC MATTER.
- SEED/SOD LIMIT LINES ARE APPROXIMATE. CONTRACTOR SHALL SEED/SOD ALL AREAS WHICH ARE DISTURBED BY GRADING WITH THE SPECIFIED SEED/SOD MIXES.
- CONTRACTOR SHALL STAKE INDIVIDUAL TREE AND SHRUB LOCATIONS AND OUTLINE HERBACEOUS PLANTING AREAS, SHALL ADJUST LOCATIONS WHEN REQUESTED, AND SHALL OBTAIN PROJECT LANDSCAPE ARCHITECT'S ACCEPTANCE PRIOR TO PLANTING.
- ALL PLANT ID TAGS SHALL BE REMOVED AFTER INSTALLATION.
- CONTRACTOR SHALL INSTALL SHREDDED HARDWOOD MULCH AT A 3" DEPTH TO ALL TREES, SHRUB, PERENNIAL, AND GROUNDCOVER AREAS. TREES PLACED IN AREA COVERED BY TURF SHALL RECEIVE A 4 FT WIDE MAXIMUM TREE RING WITH 3" DEPTH SHREDDED HARDWOOD MULCH. A SPADED BED EDGE SHALL SEPARATE MULCH BEDS FROM TURF OR SEEDED AREAS. A SPADED EDGE IS NOT REQUIRED ALONG CURBED EDGES.
- WEED FABRIC SHALL BE REQUIRED UNDER MULCH.
- MULCH SHALL NOT BE HELD IN PLACE BY PLASTIC NET, OR SPRAYING OF ANY BINDER MATERIAL OR ASPHALT EMULSION.
- DO NOT DISTURB THE EXISTING PAVING, LIGHTING, OR LANDSCAPING THAT EXISTS ADJACENT TO THE SITE UNLESS OTHERWISE NOTED ON PLAN.
- PLANT QUANTITIES SHOWN ARE FOR THE CONVENIENCE OF THE OWNER AND JURISDICTIONAL REVIEW AGENCIES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES AS DRAWN.
- THE OWNER'S REPRESENTATIVE MAY REJECT ANY PLANT MATERIALS THAT ARE DISEASED, DEFORMED, OR OTHERWISE NOT EXHIBITING SUPERIOR QUALITY.
- WEEDING, LANDSCAPE MAINTENANCE, AND WATERING TO BE THE CONTRACTOR'S RESPONSIBILITY DURING CONSTRUCTION. ALL PLANT MATERIALS REQUIRED BY THIS SECTION SHALL BE MAINTAINED AS LIVING VEGETATION AND SHALL BE PROMPTLY REPLACED BY LANDSCAPE CONTRACTOR DURING WARRANTY PERIOD IF THE PLANT MATERIAL HAS DIED PRIOR TO FINAL ACCEPTANCE. PLANTING AREAS SHALL BE KEPT FREE OF TRASH, LITTER, AND WEEDS AT ALL TIMES.
- THE CONTINUED MAINTENANCE OF ALL REQUIRED LANDSCAPING AFTER WARRANTY PERIOD EXPIRES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY ON WHICH SAID MATERIALS ARE REQUIRED.



NOTES:

- INSPECT TREE FOR DAMAGED BRANCHES, APPLY CORRECTIVE PRUNING.
- SET ROOT BALL ON UNEXCAVATED OR TAMPED SOIL. TOP OF ROOTBALL SHALL BE TWO INCHES ABOVE SURROUNDING GRADE WITH BURLAP AND WIRE BASKET INTACT.
- REMOVE WIRE BASKET AND BURLAP DOWN FOUR TO SIX INCHES BELOW TOP OF ROOT BALL. REMOVE ALL TWINE AND (IF USED), SYNTHETIC MATERIAL. REMOVE OR CORRECT GIRDLING ROOTS.
- TAMP EXCAVATED SOIL AROUND BASE OF ROOTBALL.
- BACKFILL REMAINDER EXCAVATED SOIL TAMPED LIGHTLY. HIGH CLAY OR POOR SOIL SHALL RECEIVE SOIL AMENDMENT PER LANDSCAPE NOTES.
- WATER THOROUGHLY WITHIN TWO HOURS USING 10 TO 15 GALLONS OF WATER.
- APPLY MULCH IN EVEN LAYER, KEEPING AWAY FROM ROOT FLARE.
- FINAL LOCATION OF TREE TO BE APPROVED BY OWNER.

1 TREE PLANTING

NTS

ORDINANCE CHART		
ZONING: IG - INDUSTRIAL: GENERAL		
REQUIREMENT	REQUIRED	PROVIDED
<b>STREET TREES</b>		
• 1 deciduous tree per 40 LF	• 4,597 LF/40 = 116 trees required	• 116 trees provided

### CONCEPT PLANT SCHEDULE

● STREET TREE	116
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DWG SIZE: 36" X 24"

REV	DESCRIPTION	DATE	IS.BY	REV	DESCRIPTION	DATE	IS.BY

**Quad Plus**  
Cooper & Associates, LLC

Engineers – Project Managers  
2200 Ellis Road, New Lenox, Illinois, 60451  
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**Kimley»Horn**  
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KHA PROJECT # 170509000

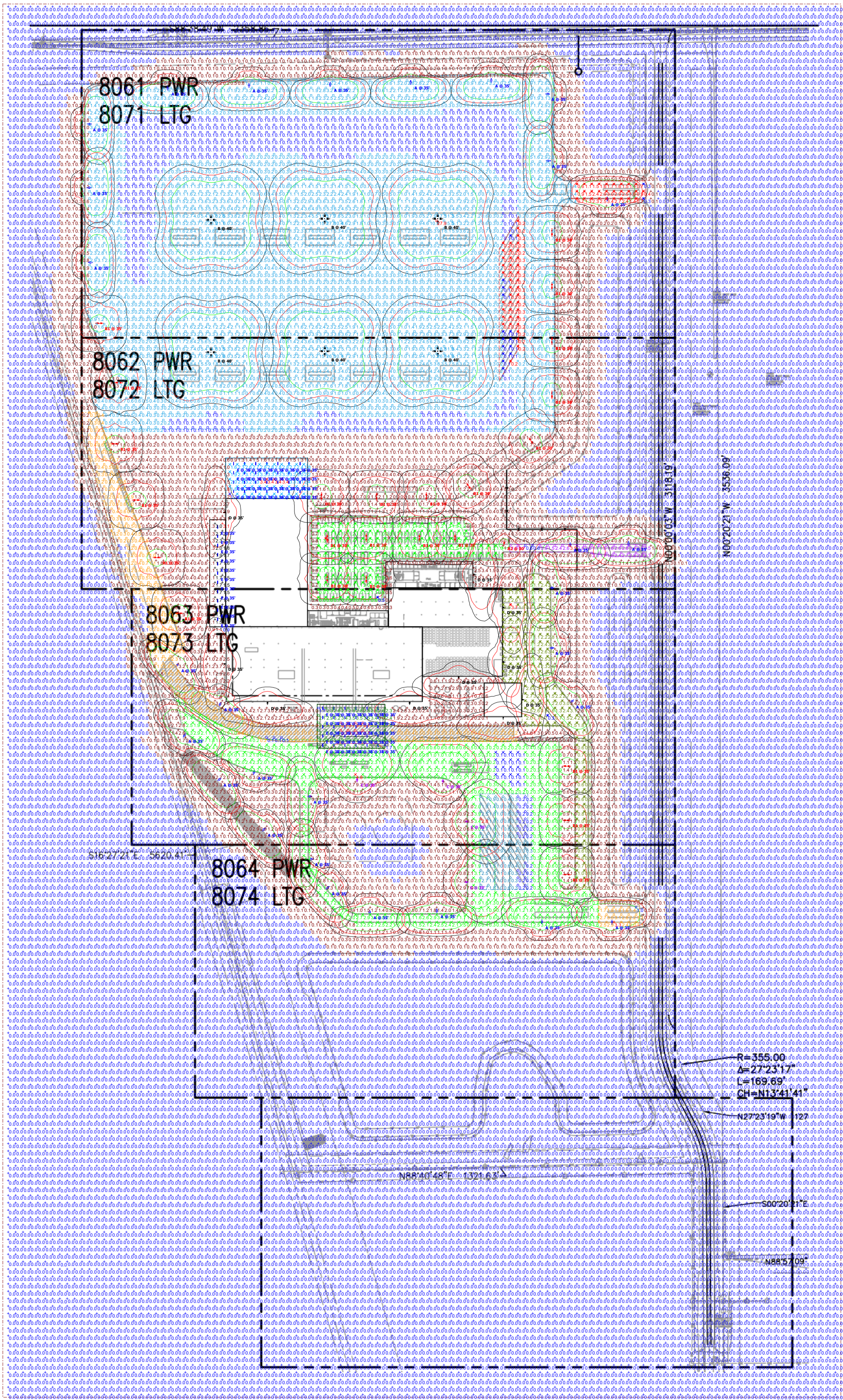
**Malarkey Roofing Products**

MALARKEY,IND FRANKLIN,IN

PHASE 2 – FINAL BUILDOUT  
LANDSCAPE DETAILS

PROJ. NO.	170509000
DWG. NO.	2996
SHEET	0
REV	0

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc. Drawing name: K:\IND\_DEV\170509000\_Cooper&Associates\_Planting\_Franklin\_IN\2 Design\CD\03\PlanSheets\Roadway Improvements\110-LANDSCAPE PLANTING.dwg 2996 Oct 10, 2024 11:13am by ValGallo



**Plan View**  
Scale = 1" = 200'

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### Autobahn Series ATB0 Roadway Lighting

**PRODUCT OVERVIEW**

**Applications:**  
Roadways  
DM ramps  
Residential streets  
Parking lots

**DIMENSIONS**

**STANDARDS**  
Compliant with IESNA RP-8-14  
Compliant with IESNA TM-21-11

**SAFETY - Roadway Applications**  
SAFETY - Roadway Applications  
This design does not conform to current IESNA RP-8-14 levels for this specific roadway classification. Acuity Brands will not be responsible for any potential safety issues that may arise due to noncompliance of these minimal levels.

### MGLED Mongoose Large LED

**Features:**

**OPTICAL**  
The Autobahn's new molded silicone optics provide exceptional performance. Silicone optics are superior to other polymer materials in the areas of optical efficiency, thermal performance, and reduction in dirt accumulation, all of which can lead to long term lumen degradation and a shift in optical distribution. Also, because silicone allows for the molding of fine details as well as flat sections, it provides the most clear and well-defined lighting distributions available. Silicone optics paired with modern LEDs allow the Autobahn to take full advantage of both technologies.

**Electrical**  
Unique IP68 rated LED light engines provide 2% light and restrict backlight to within shallow depth, providing optimal application coverage and optimal pole spacing. Available in Type II, III, IV and V roadway distributions.

**MECHANICAL**  
Includes standard AEL lifetime-friendly features such as tool-less entry, 3 station terminal block and quick disconnects. Bubble level located inside the electrical compartment for easy leveling in installation.

**Controls**  
NEMA 3 pin photometric receptacle is standard, with the Acuity designed ANS standard 7 pin receptacle optionally available.

**Dimensional Data**

**Statistics**

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
CANOPY 1	✕	2.7 fc	3.4 fc	1.3 fc	2.6:1	2.1:1
CANOPY 2	□	3.0 fc	3.7 fc	1.7 fc	2.2:1	1.8:1
CANOPY 2	+	1.8 fc	3.1 fc	0.9 fc	3.4:1	2.0:1
FAST DRIVE	✕	1.5 fc	3.7 fc	0.3 fc	12.3:1	5.0:1
ENTRANCE 1	✕	1.6 fc	3.4 fc	0.3 fc	11.3:1	5.3:1
ENTRANCE 2	□	2.1 fc	3.5 fc	0.6 fc	5.8:1	3.5:1
ENTRANCE 3	□	2.1 fc	3.3 fc	1.0 fc	3.3:1	2.1:1
NORTH TRUCK PARKING	✕	0.2 fc	0.3 fc	0.1 fc	3.0:1	2.0:1
PARKING	✕	1.2 fc	2.7 fc	0.5 fc	5.4:1	2.4:1
SOUTH TRUCK PARKING	◇	0.9 fc	2.8 fc	0.2 fc	14.0:1	4.5:1
SPILL SUMMARY	+	0.3 fc	27.9 fc	0.0 fc	N/A	N/A
STAGING AREA	□	1.1 fc	27.9 fc	0.1 fc	279.0:1	11.0:1
TRAIN PATH	□	1.0 fc	3.7 fc	0.1 fc	37.0:1	10.0:1
TRUCK DRIVE	✕	1.2 fc	4.8 fc	0.1 fc	48.0:1	12.0:1

**Schedule**

Symbol	Label	QTY	Manufacturer	Catalog	Description	Number Lamps	Lamp Output	LLF	Input Power
✕	A	29	American Electric Lighting	ATB0 P457 R3 3K	Autobahn Small P457 Package Roadway Type III 3000K	1	29748	0.9	211
□	B1	24	American Electric Lighting	ATB0 P203 R4 3K	Autobahn Small P203 Package Roadway Type IV 3000K	1	9672	0.9	140
+	B2	1	American Electric Lighting	ATB0 P203 R4 3K	Autobahn Small P203 Package Roadway Type IV 3000K	1	9672	0.9	70
✕	B	6	Holophane	MGLED P5 30K XXXXX FT	Mongoose Large, P5 Performance Package, 3000K, Forward Throw (Type 4)	1	50152	0.9	1768
✕	C	4	Holophane	MGLED P5 30K XXXXX FT	Mongoose Large, P5 Performance Package, 3000K, Forward Throw (Type 4)	1	50152	0.9	442
□	D	10	American Electric Lighting	ATB0 P457 R3L 4K	Autobahn Small P457 4000 Type 3L Roadway distribution	1	26349	0.9	211
□	E	69	Holophane	EMX L24 4000LM FGFL PGD 40K 80CRI DWHXD	EMX LED series, 24 inch, 4000 lumens, flat frosted glass lens, parking garage distribution, 4000 K, 80 CRI white, super durable	1	3331	0.9	27.53

**GENERAL NOTES - EXTERIORS**

- Readings shown are based on a total LLF as indicated in the luminaire schedule at 0.0' (0.0m) AFG (at grade). Data references the extrapolated performance projections in a 25c ambient based on 10,000 hrs of LED testing (per IESNA LM-80-08 and projected per IESNA TM-21-11).
- Please refer to the fixture labels for product type and mounting heights.
- Product information can be obtained at <https://www.acuitybrands.com/> or through your local agency.
- Grid spacing is 10' x 10' on center.
- Note: pole and wall pack locations are based on provided plans or approximations using Google Earth.
- Calculations do not account for topography and possible obstructions such as old growth trees or other foliage. Actual lighting readings may vary.

**DESIGN SERVICES**  
ACUITY BRANDS

**MALARKEY, FRANKLIN IN**

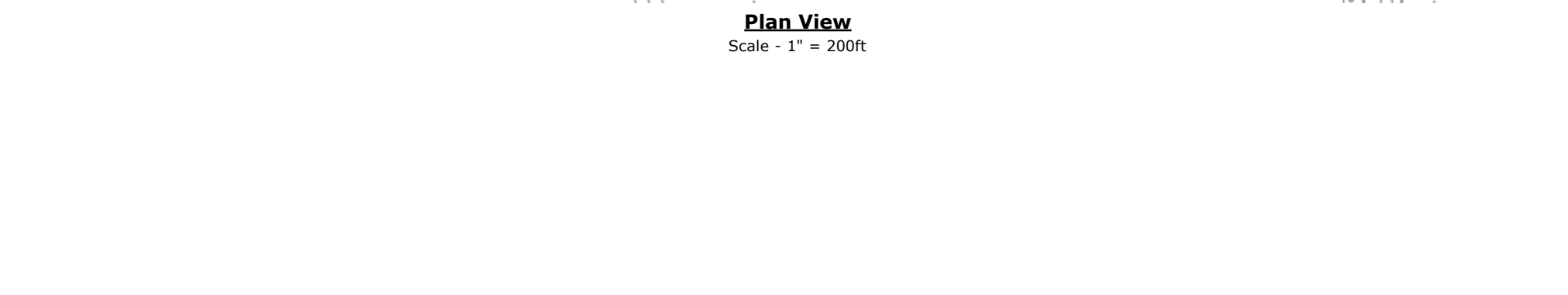
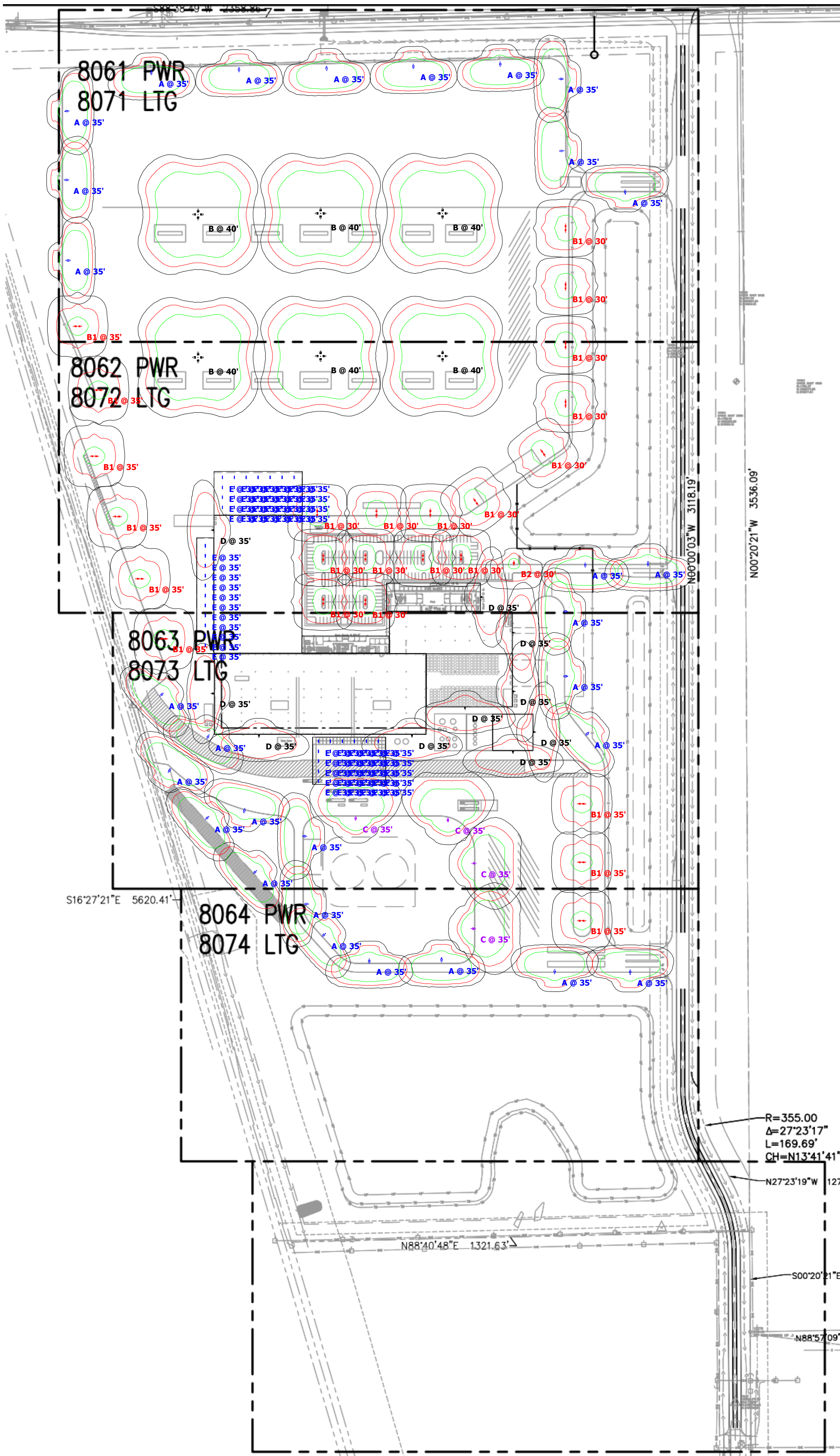
**Designer**  
MYRON JACKSON

**Date**  
10/04/2024

**Scale**  
As Shown

**Drawing No.**  
278485-1 A1

**1 of 5**



**SAFETY - Roadway Applications**  
 SAFETY - Roadway Applications  
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**GENERAL NOTES - EXTERIORS**  
 1. Readings shown are based on a total LLF as indicated in the luminaire schedule at 0.0' (0.0m) AFG (at grade). Data references the extrapolated performance projections in a 25c ambient based on 10,000 hrs of LED testing (per IESNA LM-80-08 and projected per IESNA TM-21-11).  
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### Autobahn Series ATB0 Roadway Lighting

**PRODUCT OVERVIEW**

**Features:**

**OPTICAL**  
 The Autobahn's new molded silicone optics provide exceptional performance. Silicone optics are superior to other polymer materials in the areas of optical efficiency, thermal performance, and reduction in dirt accumulation, all of which can lead to long term lumen degradation and a shift in optical distribution. Also, because silicone allows for the molding of fine details as well as thick sections, it produces the most crisp, clean and well-defined lighting distributions available. Silicone optics paired with modern LED's allow the Autobahn to take full advantage of both technologies.  
 Same Light: Performance is comparable to 100-400W HPS roadway luminaires.  
 White Light: Correlated color temperature - 4000K, or optional 2700K, 3000K or 5000K, all 70 CRI minimum.  
 Unique IP66 rated LED light engines provide 0% silt and wet-ice backlight to within sidewalk depth, providing optimal application coverage and optimal pole spacing. Available in Type II, III, IV, and V roadway distributions.

**Applications:**  
 Roadways  
 Off ramps  
 Residential streets  
 Parking lots

**DIMENSIONS**

**STANDARDS**  
 DesignLife Guarantee™ (DLG) Premium qualified product. All all versions of this product may be DLG Premium qualified. Please check the DLG Qualified Product List at [www.dlgs.com](http://www.dlgs.com).  
 Color temperature of <math>\le 2000K</math> must be qualified for International Dark Sky Association certification.  
 Rated for <math>-40^{\circ}\text{C}</math> to <math>40^{\circ}\text{C}</math> ambient  
 CSA Certified to IES and Canadian standards  
 Complies with ANSI C136.2, C136.15, C136.14, C136.11, C136.13, C136.12  
**GOVERNMENT PROCUREMENT** - BAA - Buy American Act Product with the BAA option qualifies as a domestic and product under the Buy American Act as implemented in the FAR and DFARS. Product with the BAA option also qualifies as manufactured in the United States under 501 Buy America regulations.  
 SBA - Buy America Buy America Product with the BAA option also qualifies as produced in the United States under the definition of the Buy American Act.  
 Please refer to [www.acuitybrands.com/baa](http://www.acuitybrands.com/baa) for additional information.  
 Note: Actual performance may differ as a result of end user environment and application. Specifications subject to change without notice.  
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**MGLED**  
 Mongoose Large LED

**Features:**

**OPTICAL**  
 The Mongoose LED offers roadway and area lighting product providing significant energy and maintenance savings vs. HPS luminaires. It offers the ultimate in application flexibility with a uniquely designed advanced optical system and attractive appearance. This combined with multiple lighting distributions, mounting options and the ability to tilt the fixture allows unequalled performance in a diverse set of applications ranging from interstates and parking lots.  
**Mechanical**  
 • Rugged grade A300 diecast aluminum (<math>\le 1\%</math> copper)  
 • Top load access with stainless steel latches  
 • Replace 5-charge protectors, epoxy, lubricant and polymer to ensure maximum durability  
 • Fresh seals & flange that achieve a scrub coverage rating of 4 after 5,000 hours of salt spray  
 • Removable "power door" facilitates product installation and maintenance  
 • Corrosion resistant stainless steel latches ensure secure closure over the long life cycle  
 • Multiple mounting configurations allow for attachment to horizontal or vertical surfaces (HVA, vertical beam (VT), architectural mounting to square poles (SPA) and universal mounting to round and square poles (UR)  
 • All Mounting are in vibration rated per ANSI C136.11  
 • Adjustable fixture tilt from 0-45 degrees provides flexibility to optimize lighting performance

**ELECTRICAL**  
 Expected Life: LED light engines are rated >100,000 hours at <math>25^{\circ}\text{C}</math> L70. Electronic driver has an expected life of 100,000 hours at <math>25^{\circ}\text{C}</math> ambient.  
 Lower Energy: Saves an expected of 40-60% over comparable HPS luminaires.  
 Robust Surge Protection: Two different surge protection options provide a minimum of ANSI C136.2 10kV/10kA protection. 20kV/10kA protection is also available.  
 Luminaire ships with a 0-10v dimmable driver. Luminaires are continuous, and step dimming capable via 40 options or controls installed on P7 photoreceptor receptacle type.

**MECHANICAL**  
 Includes standard AEL thermoplastic fasteners such as tool-less entry, 1 station thermal break and quick disconnects. Bubble level located inside the electrical compartment for easily leveling at installation.  
 Rugged die-cast aluminum housing and door are polyester powder-coated for durability and corrosion resistance. Rigorous five-stage pre-treating and painting process yields a finish that achieves a scrub coverage rating of 7 (per ASTM D1545) after over 5000 hours exposure to salt fog chamber (operated per ASTM B117).  
 Mast arm mount is adjustable for arms from 1-1/4" to 2-1/8" (31.8-50.8) diameters. Provides a 3x vibration rating per ANSI C136.31  
 Wildlife shield if cast into the housing (not a separate piece).

**CONTROLS**  
 NEMA 3 pin photoreceptor receptacle is standard, with the Acuity designed ANSI standard 7 pin receptacle optionally available.  
 Premium solid state locking style photocell - PCSI (10 year rated life) Extreme long life solid state locking style photocell - PCSI (10 year rated life)

**Optical**  
 Performance is comparable to 400-1000 watt HPS  
 P7 used backscatter glass optics ensure longevity and minimize dirt deposition  
 2000K, 4000K and 5000K CCT to CH  
 Distribution options: Normal Roadway (NR), Medium Roadway (MR), Wide Roadway (WR), Forward Throw (FT), and Area Type (AT)

**Dimensional Data:**  
 40.8 (1030 mm) width  
 6.7 (170mm) height  
 22.1 (561mm) length  
 43.1 (1095 mm) length  
 17.7 (450mm) length  
 24.8 (630mm) height  
 32.3 (820mm) length

**Statistics Table:**

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
CANOPY 1	✕	2.7 fc	3.4 fc	1.3 fc	2.6:1	2.1:1
CANOPY 2	□	3.0 fc	3.7 fc	1.7 fc	2.2:1	1.8:1
CANOPY 3	+	1.8 fc	3.1 fc	0.9 fc	3.4:1	2.0:1
EAST DRIVE	✕	1.5 fc	3.7 fc	0.3 fc	12.3:1	5.0:1
ENTRANCE 1	✕	1.6 fc	3.4 fc	0.3 fc	11.3:1	5.3:1
ENTRANCE 2	□	2.1 fc	3.5 fc	0.6 fc	5.8:1	3.5:1
ENTRANCE 3	□	2.1 fc	3.3 fc	1.0 fc	3.3:1	2.1:1
NORTH TRUCK PARKING	✕	0.2 fc	0.3 fc	0.1 fc	3.0:1	2.0:1
PARKING	✕	1.2 fc	2.7 fc	0.5 fc	5.4:1	2.4:1
SOUTH TRUCK PARKING	◇	0.9 fc	2.8 fc	0.2 fc	14.0:1	4.5:1
SPILL SUMMARY	+	0.3 fc	27.9 fc	0.0 fc	N/A	N/A
STAGING AREA	□	1.1 fc	27.9 fc	0.1 fc	279.0:1	11.0:1
TRAIN PATH	□	1.0 fc	3.7 fc	0.1 fc	37.0:1	10.0:1
TRUCK DRIVE	✕	1.2 fc	4.8 fc	0.1 fc	48.0:1	12.0:1

**Schedule Table:**

Symbol	Label	QTY	Manufacturer	Catalog	Description	Number Lamps	Lamp Output	LLF	Input Power
□	A	29	American Electric Lighting	ATB0 P457 R3 3K	Autobahn Small P457 Package Roadway Type III 3000K	1	29748	0.9	211
◇	B1	24	American Electric Lighting	ATB0 P203 R4 3K	Autobahn Small P203 Package Roadway Type IV 3000K	1	9672	0.9	140
+	B2	1	American Electric Lighting	ATB0 P203 R4 3K	Autobahn Small P203 Package Roadway Type IV 3000K	1	9672	0.9	70
✕	B	6	Holophane	MGLED P5 30K XXXXX FT	Mongoose Large, P5 Performance Package, 3000K, Forward Throw (Type 4)	1	50152	0.9	1768
✕	C	4	Holophane	MGLED P5 30K XXXXX FT	Mongoose Large, P5 Performance Package, 3000K, Forward Throw (Type 4)	1	50152	0.9	442
□	D	10	American Electric Lighting	ATB0 P457 R3L 4K	Autobahn Small P457 4000 Type 3L Roadway distribution	1	26349	0.9	211
□	E	69	Holophane	EMX L24 4000LM FGFL PGD 40K 80CRI DWHXD	EMX LED series, 24 inch, 4000 lumens, flat frosted glass lens, parking garage distribution, 4000 K, 80 CRI white, super durable	1	3331	0.9	27.53

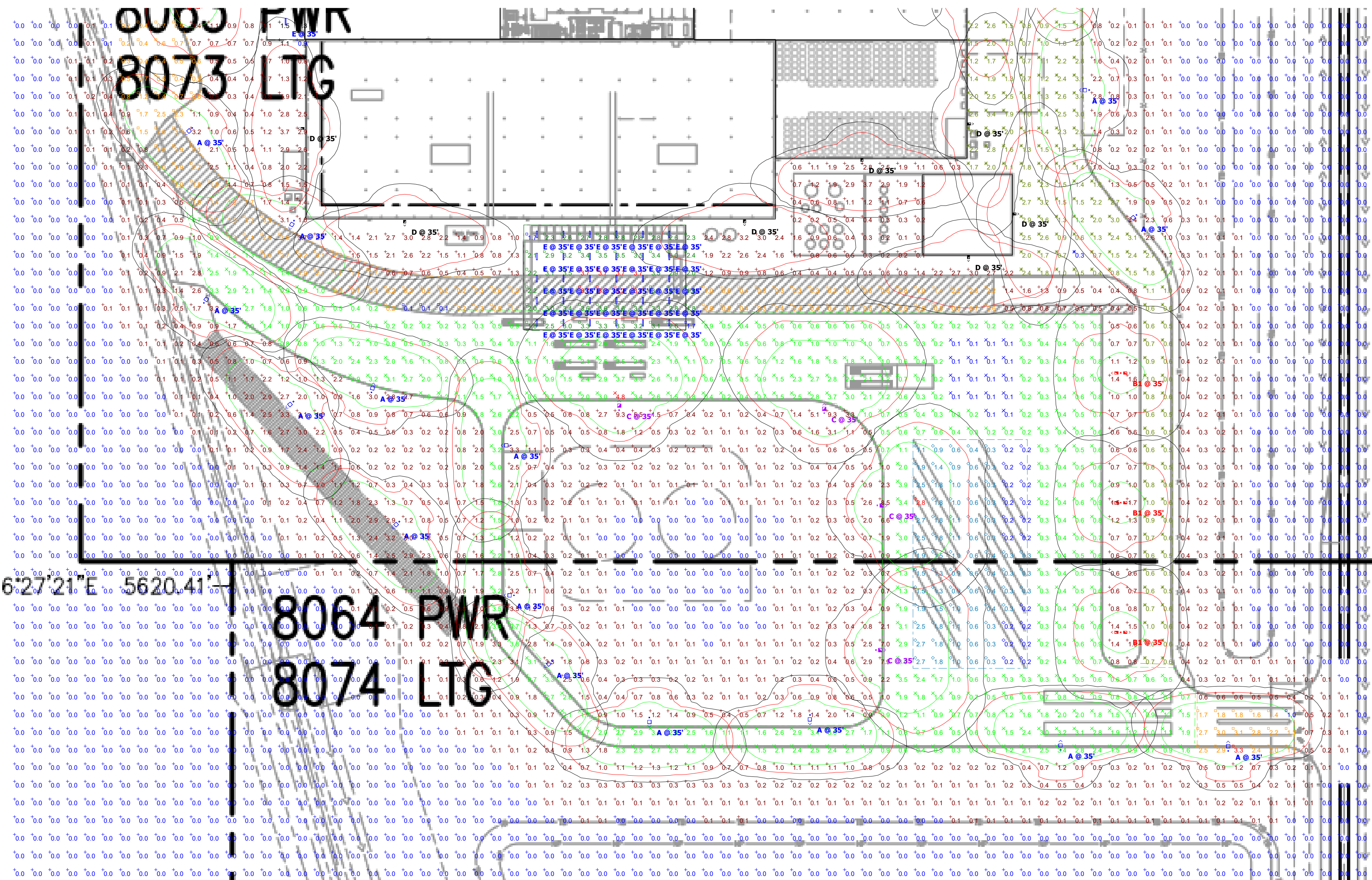


**MALARKEY, FRANKLIN IN**

**Designer**  
 MYRON JACKSON  
**Date**  
 10/04/2024  
**Scale**  
 As Shown  
**Drawing No.**  
 278485-1 A1  
**2 of 5**

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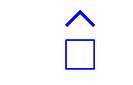




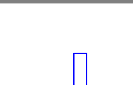















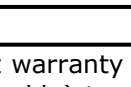


Plan View - A  
Scale - 1" = 80'

**SAFETY - Roadway Applications**  
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Schedule								
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	<b>B1</b>	24	American Electric Lighting	ATB0 P203 R4 3K	Autobahn Small P203 Package Roadway Type IV 3000K	1	9672	140
	<b>B2</b>	1	American Electric Lighting	ATB0 P203 R4 3K	Autobahn Small P203 Package Roadway Type IV 3000K	1	9672	70
	<b>B</b>	6	Holophane	MGLED P5 30K XXXXX FT	Mongoose Large, P5 Performance Package, 3000K, Forward Throw (Type 4)	1	50152	1768
	<b>C</b>	4	Holophane	MGLED P5 30K XXXXX FT	Mongoose Large, P5 Performance Package, 3000K, Forward Throw (Type 4)	1	50152	442
	<b>D</b>	10	American Electric Lighting	ATB0 P457 R3L 4K	Autobahn Small P457 4000 Type 3L Roadway distribution	1	26349	211
	<b>E</b>	69	Holophane	EMX L24 4000LM FGFL PGD 40K 80CRI DWHXD	EMX LED series, 24 inch, 4000 lumens, flat frosted glass lens, parking garage distribution, 4000 K, 80 CRI white, super durable	1	3331	27.53

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EAST DRIVE		1.5 fc	3.7 fc	0.3 fc	12.3:1	5.0:1
ENTRANCE 1		1.6 fc	3.4 fc	0.3 fc	11.3:1	5.3:1
ENTRANCE 2		2.1 fc	3.5 fc	0.6 fc	5.8:1	3.5:1
ENTRANCE 3		2.1 fc	3.3 fc	1.0 fc	3.3:1	2.1:1
NORTH TRUCK PARKING		0.2 fc	0.3 fc	0.1 fc	3.0:1	2.0:1
PARKING		1.2 fc	2.7 fc	0.5 fc	5.4:1	2.4:1
SOUTH TRUCK PARKING		0.9 fc	2.8 fc	0.2 fc	14.0:1	4.5:1
SPILL SUMMARY		0.3 fc	27.9 fc	0.0 fc	N/A	N/A
STAGING AREA		1.1 fc	27.9 fc	0.1 fc	279.0:1	11.0:1
TRAIN PATH		1.0 fc	3.7 fc	0.1 fc	37.0:1	10.0:1
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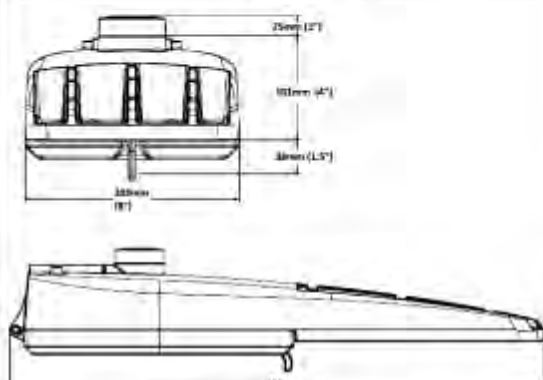
**PRODUCT OVERVIEW**



**Applications:**

- Roadways
- Off ramps
- Residential streets
- Parking lots

**DIMENSIONS**



Effective Projected Area (EPA): The EPA for the ATBO is 0.36 sq. ft. Approx. Wt = 14 lbs.

**STANDARDS**

DesignLights Consortium® (DLC) Premium qualified product. All versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at [www.dlc.com/dlc](http://www.dlc.com/dlc) to confirm which version is qualified.

Color temperatures of < 3000K must be specified for International Dark-Sky Association certification.

Rated for -40°C to 40°C ambient  
 CSA Certified in US and Canadian markets  
 Complies with ANSI C136.2, C136.10, C136.14, C136.31, C136.11, C136.37

**GOVERNMENT PROCUREMENT** — BAA – Buy America(s) Act: Product with the BAA option qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product with the BAA option also qualifies as manufactured in the United States under DOT Buy America regulations.

BABA – Build America Buy America: Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act. Please refer to [www.acuitybrands.com/buy-america](http://www.acuitybrands.com/buy-america) for additional information.

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**Features:**

**OPTICAL**

The Autobahn's new molded silicone optics provide exceptional performance. Silicone optics are superior to other polymeric materials in the areas of: optical efficiency, thermal performance, and reduction in dirt accumulation, all of which can lead to long term lumen degradation and a shift in optical distribution. Also, because silicone allows for the molding of fine details as well as thick sections, it produces the most crisp, clean and well-defined lighting distributions available. Silicone optics paired with modern LEDs allow the Autobahn to take full advantage of both technologies.

Same Light: Performance is comparable to 100 – 400W HPS roadway luminaires.

White Light: Correlated color temperature - 4000K, or optional 2700K, 3000K or 5000K, all 70 CRI minimum.

Unique IP66 rated LED light engines provided 0% uplight and restrict backlight to within sidewalk depth, providing optimal application coverage and optimal pole spacing. Available in Type II, III, IV, and V roadway distributions.

**ELECTRICAL**

Expected Life: LED light engines are rated >100,000 hours at 25°C, L70. Electronic driver has an expected life of 100,000 hours at a 25°C ambient.

Lower Energy: Saves an expected of 40-60% over comparable HID luminaires.

Robust Surge Protection: Two different surge protection options provide a minimum of ANSI C136.2 10kV/5kA protection. 20kV/10kA protection is also available.

Luminaire ships with a 0-10v dimmable driver. Luminaire is continuous and step dimming capable via A0 option or controls installed on P7 photocontrol receptacle option.

**MECHANICAL**

Includes standard AEL lineman-friendly features such as tool-less entry, 3 station terminal block and quick disconnects. Bubble level located inside the electrical compartment for easily leveling at installation.

Rugged die-cast aluminum housing and door are polyester powder-coated for durability and corrosion resistance. Rigorous five-stage pre-treating and painting process yields a finish that achieves a scotch creepage rating of 7 (per ASTM D1654) after over 5000 hours exposure to salt fog chamber (operated per ASTM B117).

Max arm moment is adjustable for arms from 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter. Provides a 3G vibration rating per ANSI C136.31

Wildlife-shield is cast into the housing (not a separate piece).

**CONTROLS**

NEMA 3 pin photocontrol receptacle is standard, with the Acuity designed ANSI standard 7 pin receptacle optionally available.

Premium solid state locking style photocontrol – PCS5 (10 year rated life) Extreme long life solid state locking style photocontrol – PCLL (20 year rated life).

Optional onboard Adjustable Output module allows the light output and input wattage to be modified to meet site specific requirements, and also can allow a single fixture to be flexibly applied in many different applications.

**MGLED**  
 Mongoose Large LED



The Mongoose LED off-road roadway and area lighting product provides significant energy and maintenance savings vs. HID luminaires. It offers the ultimate in application flexibility with a uniquely designed advanced optical system and attractive appearance. This combined with multiple lighting distributions, mounting options and the ability to tilt the fixture offers unequalled performance in a diverse set of applications ranging from interstates and parking lots.

**Mechanical**

- Rugged grade 6362 diecast aluminum (<1% copper)
- Tool-less access with stainless steel latches
- Rigorous 5 stage pretreatment, epoxy basecoat and polyester topcoat to ensure maximum durability
- Finish yields a finish that achieves scotch creepage rating of 8 after 5,000 hours of salt spray
- Removable "povee door" facilitates product installation and maintenance
- Corrosion resistant stainless-steel latches ensure secure closure over the long feature life
- Multiple mounting configurations allow for attachment to horizontal mast arms (MA), vertical tension (VT), architectural mounting to square poles (SPA) and universal mounting to round and square poles (UP)
- All Mountings are 3G vibration rated per ANSI C136.31
- Adjustable fixture tilt from 0-45 degrees provides flexibility to optimize lighting performance

**Electrical**

- Standard surge protection is 20kV/10kA "Extreme Level" per ANSI C136.2
- LED light engines are rated > 100,000 at 25°C, L70
- Electronic driver has an expected life of > 100,000 hours at 25°C
- Rated for -40°C / -40°F minimum ambient
- Programmable electronic driver with 0-10V control leads
- Driver voltage options: 120-277V 50/60 Hz and 247-360/60 Hz and 480V 50/60 Hz
- Luminaire ships with a 0-10v dimmable driver. Luminaire is continuous and step dimming capable via A0 option or controls installed on P7 photocontrol receptacle option.

**Optical**

- Performance is comparable to 400-1000 watt HID
- IP66 rated borosilicate glass optics ensure longevity and minimize dirt deposition
- 3000K, 4000K and 5000K CCT, 70 CRI
- Distribution options: Narrow Roadway (NR), Medium Roadway (MR), Wide Roadway (WR), Forward Throw (FT), and Area Type (AT)

• Optional Uplight Skirt (US) ensures no light above 90°

• House side shield (HSS) option available

**Controls**

- 7 pin NEMA photocontrol receptacle
- Premium solid-state locking-style photocontrol (PCS5) – 10 year rated life
- Extreme long life solid state locking-style photocontrol (PCLL) – 20 year rated life
- Field adjustable output
- Light for motion and daylight sensor
- Programmable motion and daylight sensor

**Certification & Standards**

- CSA Certified to US and Canadian standards
- Suitable for operation in an ambient temperature up to 40°C / 104°F for standard product
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at [www.designlights.org/QPL](http://www.designlights.org/QPL) to confirm which versions are qualified.
- LM-79 compliant
- The projected LED Lumen Maintenance shall be based only on IES LM-80-08 and TM-21

**Government Procurement**

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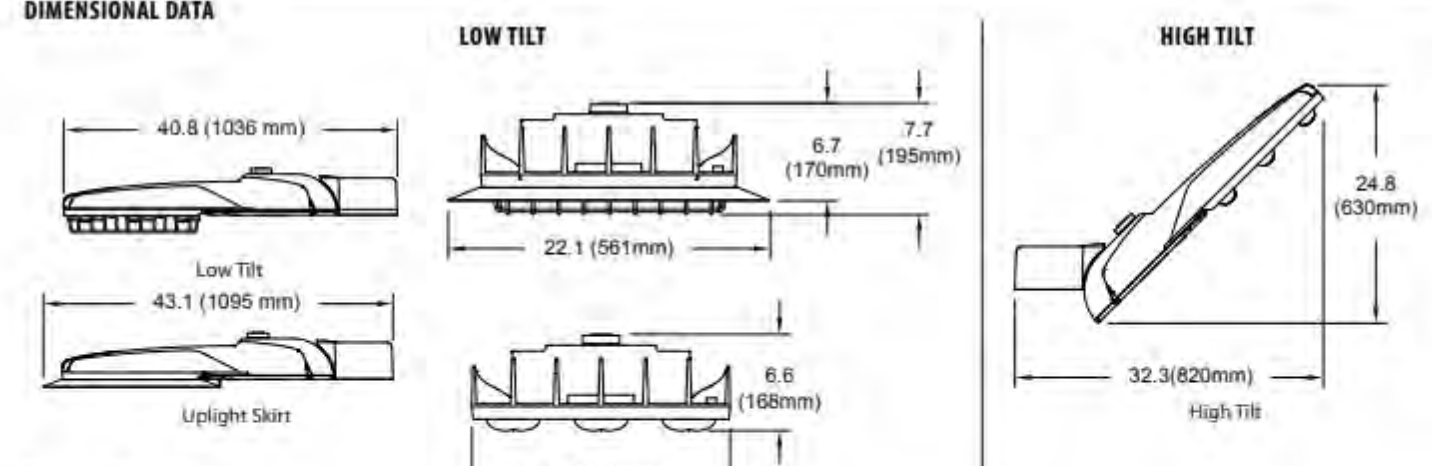
**Warranty**

- 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: [www.acuitybrands.com/support/warranty/terms-and-conditions](http://www.acuitybrands.com/support/warranty/terms-and-conditions)

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**DIMENSIONAL DATA**



Maximum Height - 55 lbs  
 Maximum Effective Projected Area:  
 Low LRI = 1.20 sq. ft.  
 High LRI = 3.25 sq. ft.

**Petrolux® EMX LED**  
 Wet Location for Demanding Environments



**Embed nLight controls today. Prepare for tomorrow.**



Catalog Number	
Notes	Type

**FEATURES & SPECIFICATIONS**

Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate. Click here for Acrylic/Polycarbonate Compatibility Table for suitable use.

Certain airborne contaminants may adversely affect the functioning of LEDs and other electronic components, depending on various factors such as concentrations of the contaminants, ventilation, and temperature at the end-user location. Click here for a list of substances that may not be suitable for interaction with LEDs and other electronic components.

**ENCLOSED CONSTRUCTION:**

- Cast & Extruded Aluminum - Polyester Powder Coated
- 304 Stainless Steel Hardware
- 304 Stainless steel mounting bracket
- Molded Silicone Gasketing
- 3/4" threaded NPT end-caps standard
- Corrosion resistant super durable FGC thermoset powder coat finish is a five-stage pre-treating and painting process that yields over 5,000 hours salt rating per ASTM B117

**OPTICS & LENS:**

- Clear & Frosted Polycarbonate, 125" thick
- Clear & Frosted Tempered Glass, 125" thick

**ELECTRICAL:**

- MVOL1 (120-277V)
- MVOL2 (247-480V)
- 0-10V 10% dimming

**INSTALLATION:**

- Angle (wall or ceiling) with optional RMB
- Pendant with PMAK option (L24 only, will include 18" wiring leads; existing monopoint hub)
- Pole (110" trade size pipe) with optional RMB
- Surface (ceiling) with standard mounting bracket or optional RMB
- Surface (wall) with optional RMB
- Suspended (chain or cable) with standard mounting bracket or optional RMB

**WARRANTY** — 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: [www.acuitybrands.com/support/warranty/terms-and-conditions](http://www.acuitybrands.com/support/warranty/terms-and-conditions)

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The product images shown are for illustration purposes only and may not be an exact representation of the product. Specifications subject to change without notice.

**Capable Luminaire**

This luminaire is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks marked by a **shaded background**

To learn more about A+, visit [www.acuitybrands.com/aplus](http://www.acuitybrands.com/aplus).

\*See ordering tree for details