File No. EA2022-134

CITY OF RICHLAND
Determination of Non-Significance

Description of Proposal: Construction of a 4-way intersection at the intersection of Steptoe Blvd. and Tapteal Dr. in Richland, WA.

Proponent: Nick Wright
1955 Jadwin Ave.
Richland, WA 99354

Location of Proposal: The project site is located at the intersection of Steptoe Blvd. and Tapteal Dr. in Richland, WA.

Lead Agency: City of Richland

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

( ) There is no comment for the DNS.

(**X**) This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for fourteen days from the date of issuance.

( ) This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.

Responsible Official: Mike Stevens
Position/Title: Planning Manager
Address: 625 Swift Blvd., MS #35, Richland, WA 99352
Date: January 26, 2023
Comments Due: February 10, 2023

Signature_____

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background [HELP]

1. Name of proposed project, if applicable: Steptoe/Tapteal Intersection

2. Name of applicant: Nick Wright

3. Address and phone number of applicant and contact person: 1955 Jadwin Ave. Richland, WA 99354, 509-845-9411

4. Date checklist prepared: 10/24/2022

5. Agency requesting checklist: City of Richland

6. Proposed timing or schedule (including phasing, if applicable): Construction of the intersection will begin in 2023.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. No.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. None.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. None.

10. List any government approvals or permits that will be needed for your proposal, if known. Building permit for intersection construction, as well as permits and approval from the Port of Benton for the rail portion of the project.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

Construction of a 4-way intersection at the intersection of Steptoe Blvd. and Tapteal Dr. in Richland, WA.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

Intersection of Steptoe and Tapteal Dr. Richland, WA

B. Environmental Elements [HELP]

1. *Earth* [help]

a. General description of the site:

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____

b. What is the steepest slope on the site (approximate percent slope)? 2%

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

The site is currently a paved road that will be redesigned and constructed.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.
None.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.
The site has an approximate area of 5 acres. The site is an existing intersection that will be replaced with a new 4-way lighted intersection.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
Wind and stormwater erosion could occur as a result of clearing and construction activity but will be minimized with the use of BMPs, such as silt fencing, construction entrance and watering.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?
90%

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
Standard erosion control and BMP methods will be used, such as catch basin protection, silt fencing, and stabilized construction entrances. Dust during construction will be controlled by the use of a water truck as necessary.

2. Air [help]

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.
The only air emissions would be dust. We will have a water truck on site during all excavation activities to help mitigate dust.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.
None.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:
A water truck will be on-site during operations to minimize air born dust.

3. Water [help]

a. Surface Water: [help]

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

There is a seasonal irrigation ditch adjacent to the project site.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Part of the new intersection will be built adjacent to the irrigation ditch.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

None.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

No, based on the FEMA Flood 53553 0015 E

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

None.

b. Ground Water: [help]

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

No.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

None.

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Any stormwater from impervious surfaces will be diverted to the City of Richland stormwater system.

2) Could waste materials enter ground or surface waters? If so, generally describe.
No.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.
No.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:
All surface water will be diverted to the City of Richland stormwater system.

4. Plants [help]

a. Check the types of vegetation found on the site:

____deciduous tree: alder, maple, aspen, other
____evergreen tree: fir, cedar, pine, other
____shrubs
____grass
____pasture
____crop or grain
____ Orchards, vineyards or other permanent crops.
____ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
____water plants: water lily, eelgrass, milfoil, other
____other types of vegetation

b. What kind and amount of vegetation will be removed or altered?
The site is currently an existing paved intersection. Very little existing vegetation, if any, will be altered.

c. List threatened and endangered species known to be on or near the site.
None per the Washington DNR Natural Heritage Program

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
The project consists of reconstructing an existing intersection, and does not have any plans for any landscaping.

e. List all noxious weeds and invasive species known to be on or near the site.
None per the WSDA Noxious Weed Data view.

5. Animals [help]

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.

None.

Examples include:

birds: hawk, heron, eagle, songbirds, other:
mammals: deer, bear, elk, beaver, other:
fish: bass, salmon, trout, herring, shellfish, other _____

b. List any threatened and endangered species known to be on or near the site.
None per the WDFW Priority Habitat Species on the Web viewer.

c. Is the site part of a migration route? If so, explain
Other than the Pacific Flyway Migration route, no.

d. Proposed measures to preserve or enhance wildlife, if any:
None.

e. List any invasive animal species known to be on or near the site.
None per the WDFW Priority Habitat Species on the Web viewer.

6. Energy and Natural Resources [help]

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.
N/A

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
N/A

7. Environmental Health [help]

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.
None.

1) Describe any known or possible contamination at the site from present or past uses.
None.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.
None.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.
None.

4) Describe special emergency services that might be required.
None.

5) Proposed measures to reduce or control environmental health hazards, if any:
None.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
The site is near SR 240, and there are railroad tracks that run through the site.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.
There will be construction noise typically between 7am-6pm Monday through Friday.

3) Proposed measures to reduce or control noise impacts, if any:
Limit work hours to the daytime so as to not irritate neighbors.

8. Land and Shoreline Use [help]

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.
The site is currently an intersection. We are going to be re-constructing a new and improved intersection to meet the needs of the City of Richland..

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?
No.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:
No.

c. Describe any structures on the site. Existing pavement and sidewalk.

d. Will any structures be demolished? If so, what? We will remove existing asphalt and sidewalk, and replace.

e. What is the current zoning classification of the site? City street.

f. What is the current comprehensive plan designation of the site? City street.

g. If applicable, what is the current shoreline master program designation of the site? None.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify. No. The land is currently an intersection.

i. Approximately how many people would reside or work in the completed project? N/A

j. Approximately how many people would the completed project displace? None.

k. Proposed measures to avoid or reduce displacement impacts, if any: None.

L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: The site is already an existing intersection. We will be improving the intersection with this project to ease the traffic congestion in this particular area.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any: None.

9. Housing [help]

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. N/A

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. None.

c. Proposed measures to reduce or control housing impacts, if any: None.

10. Aesthetics [help]

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? Traffic lights and railroad crossing equipment: 20' tall.

b. What views in the immediate vicinity would be altered or obstructed? None.

b. Proposed measures to reduce or control aesthetic impacts, if any:None.

11. Light and Glare [help]

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? Typical traffic lights and rail road crossing lights. 24/7

b. Could light or glare from the finished project be a safety hazard or interfere with views? No.

c. What existing off-site sources of light or glare may affect your proposal? None.

d. Proposed measures to reduce or control light and glare impacts, if any: City standard traffic lights will be used.

12. Recreation [help]

a. What designated and informal recreational opportunities are in the immediate vicinity? The Columbia River is about a mile north east and Chamna Natural Preserve is located ½ mile away.

b. Would the proposed project displace any existing recreational uses? If so, describe. None.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: None.

13. Historic and cultural preservation [help]

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers ? If so, specifically describe. None.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. None. We completed a cultural resources survey for the land directly west of the site that showed no indication of any Indian or historic use.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

We had a cultural resources survey completed.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required. None.

14. Transportation [help]

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

The site is an existing intersection. Once the project is complete, access will be improved to the area.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

The site is approximately 500' from the nearest transit stop.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

N/A

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

We will improve the pedestrian access at the intersection, as well as improving traffic congestion at the intersection.

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. The intersection construction includes a rail crossing.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates? No additional trips will be created by this project, however a Traffic Impact Analysis was created for the site in July 2021 to verify that the intersection will support future growth.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe. No.

h. Proposed measures to reduce or control transportation impacts, if any: Street improvements to Steptoe St.

15. Public Services [help]

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. No.

b. Proposed measures to reduce or control direct impacts on public services, if any. None.

16. Utilities [help]

a. Circle utilities currently available at the site:
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _____

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.
Water, sewer refuse and electricity will be from City of Richland.
Natural gas will be provided by Cascade Natural Gas

These utilities exist currently at the intersection.

C. Signature [HELP]

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____

Name of signee Grant Young

Position and Agency/Organization Developer

Date Submitted: 10/24/2022

D. Supplemental sheet for nonproject actions [HELP]

(**IT IS NOT NECESSARY** to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise? All storm water will be retained on site, dust will be mitigated during construction via on site water trucks, and construction work will only occur during daytime hours.

Proposed measures to avoid or reduce such increases are: see above.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?
Animals, fish and marine life will be unaffected. The site is currently an intersection, with no anticipation to affect any plant, animals, or marine life.

Proposed measures to protect or conserve plants, animals, fish, or marine life are: None.

3. How would the proposal be likely to deplete energy or natural resources? None.

Proposed measures to protect or conserve energy and natural resources are: None.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands? None.

Proposed measures to protect such resources or to avoid or reduce impacts are: None.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans? None.

Proposed measures to avoid or reduce shoreline and land use impacts are: None.

6. How would the proposal be likely to increase demands on transportation or public services and utilities? The completed project will help facilitate increase demands on

transportation and public services as the intersection will be improved to include a 4-way lighted intersection.

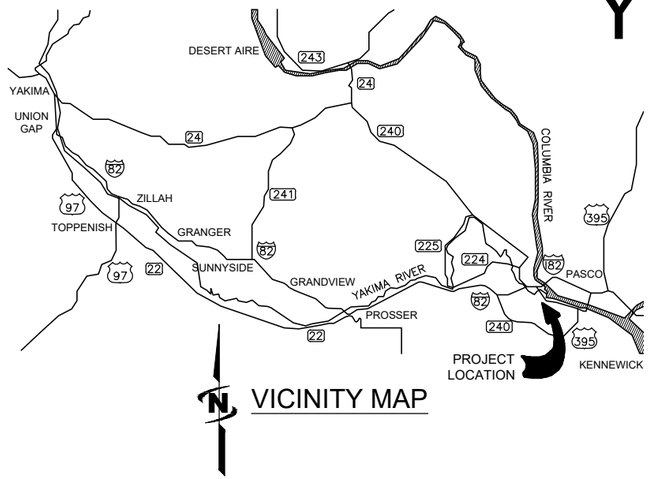
Proposed measures to reduce or respond to such demand(s) are: See above.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment. None.

YOUNG ASSET MANAGMENT

STEPTOE AND TAPTEAL INTERSECTION

S.25,T.9N.,R.28 E.



VICINITY MAP

SITE MAP

0 200 400

SCALE IN FEET

J-U-B ENGINEERS, INC.

90% SUBMITTAL
AUGUST 2022

CONTACTS:

POWER
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RICHLAND, WA 99352
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509-539-0171 CELL

TRI-CITY RAILROAD COMPANY (TCRY)
JOSE ROMERO
509-727-8957

SHEET INDEX

APPROVED FOR CONSTRUCTION BY:

CITY OF RICHLAND	DATE
TRI-CITY RAILROAD COMPANY (TCRY)	DATE
PORT OF BENTON - TRACK OWNER	DATE

NOTICE AND DISCLAIMER

NOTE: FUTURE WATERLINE EXTENSION BY THE CITY OF RICHLAND IS SHOWN FOR INFORMATION PROVIDED BY THE CITY. WATER AND SEWER SERVICE TO THE DEVELOPMENT WEST OF STEPTOE IS NOT PART OF THIS SUBMITTAL AND IS SHOWN CONCEPTUALLY FOR INFORMATION ONLY.

LAST UPDATED: 8/30/2022

SHEET NUMBER:

G-001

Plot Date:10/3/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_G-1.DWG

SYMBOL DESCRIPTION	EXISTING SYMBOL	PROPOSED SYMBOL
SURVEY		
CAP (ALUMINUM)		
CAP (BRASS)		
CHISELED X		
CTRL PT GENERIC		
CTRL PT ½" REBAR	1/2" PIN CONTROL PT	
CTRL PT ⅝" REBAR	5/8" PIN CONTROL PT	
CTRL PT 60D NAIL	60D	
CTRL PT HUB & TACK	HT	
CTRL PT PK NAIL	PK	
CTRL PT TEMP BENCH MARK	TBM	
NAIL		
NAIL AND TAG	N/T	
NAIL (PK)	PK	
BOLT		
DRILL STEEL		
REBAR (½")		
REBAR (⅝")		
STAINLESS STEEL ROD		
IRON PIPE		
RAILROAD SPIKE		
R/W MONUMENT		
STONE		
SECTION CORNER. MON.	22 15 21 16	
SECTION QUARTER MON.	15 22	
SITE		
BOLLARD		
BOULDER		
DRINKING FOUNTAIN	DF	
FLAGPOLE	F	F
GATE		
MAIL BOX	M	M
PARKING METER	PM	PM
POST		
SIGN		
SPOT ELEVATION		
TREE (SHRUB)		
TREE (STUMP)		
TREE (CONIFEROUS)		
TREE (DECIDUOUS)		
TEST HOLE	TH	
WELL	W	
WELL (MONITORING)	M	M

SYMBOL DESCRIPTION	EXISTING SYMBOL	PROPOSED SYMBOL
COMMUNICATION		
TELE. MANHOLE	T	
TELE. PEDESTAL	T	T
TELE. POLE		
TV PEDESTAL	TV	TV
GUY WIRE		
DOMESTIC WATER		
FIRE HYDRANT		
SPIGOT		
YARD HYDRANT		
WATER MANHOLE	W	
WATER METER		
WATER VALVE	W	W
ELECTRIC		
ELEC. MANHOLE	E	
ELEC. METER	E	E
ELEC. TRANS.	E	E
JUNCTION BOX	J	J
POWER POLE		
POWER STUB	E	E
STREET LIGHT		
TRAFFIC SIGNAL POLE		
IRRIGATION		
IRRIGATION VALVE	IRR	IRR
IRRIGATION VALVE BOX		
SPRINKLER		
SANITARY SEWER		
CLEANOUT		
SEWER STUB	S	S
SS MANHOLE		
STORM DRAIN		
CATCH BASIN		
DRY WELL	DW	DW
FLARE END		
GREASE TRAP		
SD MANHOLE		

LINE LEGEND

LINE DESCRIPTION	PROPOSED LINE	EXISTING LINE
POWER / COMMUNICATIONS		
OVERHEAD POWER	OHP	OHP
UNDERGROUND POWER	UP	UP
OVERHEAD TELEPHONE	OHT	OHT
UNDERGROUND TELEPHONE	UT	UT
FIBER OPTIC	F/O	F/O
CABLE TELEVISION	CTV	CTV
UNDERGROUND POWER, TEL, CABLE TV		P,T,CTV
UNDERGROUND POWER, TEL, CABLE TV, GAS		P,T,CTV,G
ILLUMINATION	ILL	ILL
STORM DRAIN		
STORM DRAIN (GENERAL)	SD	SD
STORM DRAIN	X"SD	X"SD
ROOF DRAIN	RD	RD
LAND DRAIN	LD	LD
SANITARY SEWER		
SANITARY SEWER (GENERAL)	SS	SS
SANITARY SEWER	X"SS	X"SS
SANITARY SEWER SERVICE	SS SS	SS SS
SEWER FORCE MAIN	FM	FM
WATER		
WATER (GENERAL)	W	W
WATER (SPECIFIED SIZE)	X"W	X"W
WATER SERVICE	WS WS	WS WS
IRRIGATION		
IRRIGATION	IRR	IRR
GRAVITY IRRIGATION	GIRR	GIRR
PRESSURE IRRIGATION	PIRR	PIRR
POTABLE WATER	PW	PW
NON-POTABLE WATER	NPW	NPW
GAS		
NATURAL GAS	G	G
NATURAL GAS SERVICE	G G	G G
HIGH PRESSURE GAS	HPG	HPG
LIQUID GAS	LG	LG
UTILITY		
CHLORINE LINE	CHL	CHL
INDUSTRIAL WASTE WATER	IWW	IWW
DRAIN LINE	DL	DL

LINE DESCRIPTION	PROPOSED LINE	EXISTING LINE
BOUNDARY		
PROPERTY LINE	P/L	P/L
PROPERTY LINE		
RIGHT OF WAY	R/W	R/W
TEMPORARY EASEMENT	T/E	T/E
PERMANENT EASEMENT	P/E	P/E
TOWNSHIP AND RANGE		
SECTION LINE		
QUARTER SECTION LINE		
1/16 SECTION LINE		
STATE LINE		
COUNTY LINE		
SITE		
FENCE	X	X
MAJOR CONTOUR	2521	
MINOR CONTOUR		
GRADE BREAK		GB
TOP OF BANK		TOB
TOE OF SLOPE		TOE
CUT LIMITS		
CUT LIMITS	CUT	
FILL LIMITS		
FILL LIMITS	FILL	
DITCH		
STORM SWALE		
EDGE OF WATER		
HIGH WATER		
WETLAND		WET
WETLAND BOG		BOG
WETLAND MARSH		MRSH
WETLAND SWAMP		SWMP
ROADWAY		
ROAD SHOULDER		
ROAD CENTERLINE		
ROAD ASPHALT		EP
ROAD GRAVEL	EG	EG
TOP BACK OF CURB		
LIP OF GUTTER		
LANDSCAPING LIMITS	LS	LS

HATCH LEGEND

HMA

HMA REMOVAL

CONCRETE

CONCRETE REMOVAL

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NO.	DESCRIPTION	BY	APP.	DATE
	REVISION			

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

LEGEND

FILE : 07-21-030_G-2
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD

ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

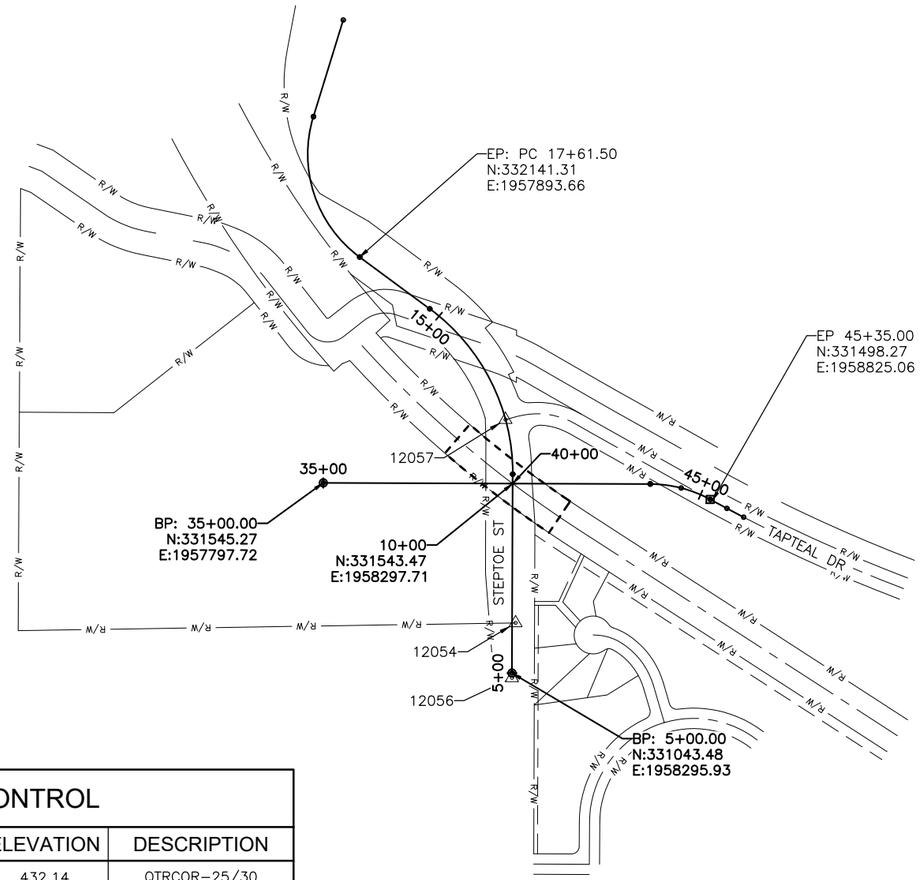
LAST UPDATED: 8/2/2022

SHEET NUMBER:
G-002

Plot Date:8/30/2022 3:53 PM Plotted By: William Gillan
Date Created:12/14/2021 \\JUB.COM\CENTRAL\CLIENTS\WAYOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_G-2.DWG

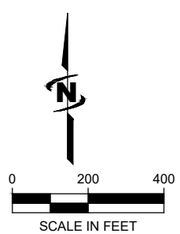
BASIS OF BEARINGS
1983 (NAD 83/91), WASHINGTON STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (4602) UTILIZING THE CITY OF RICHLAND'S PUBLISHED GPS CONTROL, POINT NUMBERS 2054 (JUB POINT 12054), 2056 (JUB POINT 12056) AND 2057 (JUB POINT 12057).

VERTICAL DATUM
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) BASED ON GPS OBSERVATIONS TO CITY OF RICHLAND PROVIDED GPS CONTROL POINT NO. 2056. THIS MONUMENT IS THE PROJECT BENCHMARK, PUBLISHED ELEVATION BEING 441.28 FEET.



SURVEY CONTROL

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
12054	331175.80	1958305.45	432.14	QTRCOR-25/30
12056	331030.74	1958295.90	441.28	MON-STEPTOE/CANYON
12057	331712.17	1958278.82	410.93	MON-STEPTOE/TAPTEAL



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NO.	DESCRIPTION	BY	APR.	DATE

REVISION

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

SURVEY CONTROL

FILE : 07-21-030_G-3
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/30/2022

SHEET NUMBER:
G-003

Plot Date:8/30/2022 3:33 PM Plotted By: William Gillan
Date Created:8/30/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_G-3.DWG

KEYED NOTES

1. SALVAGE STREET LIGHT
2. REMOVE CEMENT CONC. CURB AND GUTTER
3. REMOVE CEMENT CONC. SIDEWALK
4. REMOVE TRAFFIC ISLAND
5. RETAIN AND PROTECT UTILITY
6. RETAIN AND PROTECT TREE
7. SALVAGE GATE ARM. DELIVER TO XXX
8. SALVAGE CANTILEVER. DELIVER TO XXX
9. ADJUST MANHOLE
10. REMOVE BUNGALOW
11. REMOVE CONC. INLET
12. ADJUST VALVE BOX
13. REMOVE SIGN
14. RETAIN AND PROTECT WING WALL
15. REMOVE CHAIN LINK FENCE
16. RELOCATE UTILITY (BY OTHERS)
17. RETAIN AND PROTECT SIGN
18. REMOVE RETAINING WALL
19. REMOVE ASPHALT CONC. PAVEMENT
20. REMOVE DRYWELL
21. REMOVE AND RESET SURVEY MONUMENT
22. ABANDON EXISTING STORM SEWER PIPE

HMA REMOVAL

CONCRETE REMOVAL

HORZ 0 20 40

VERT 0 5 10

SCALE IN FEET

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STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

SITE PREPARATION
STA 5+00.00 TO STA 8+00.00

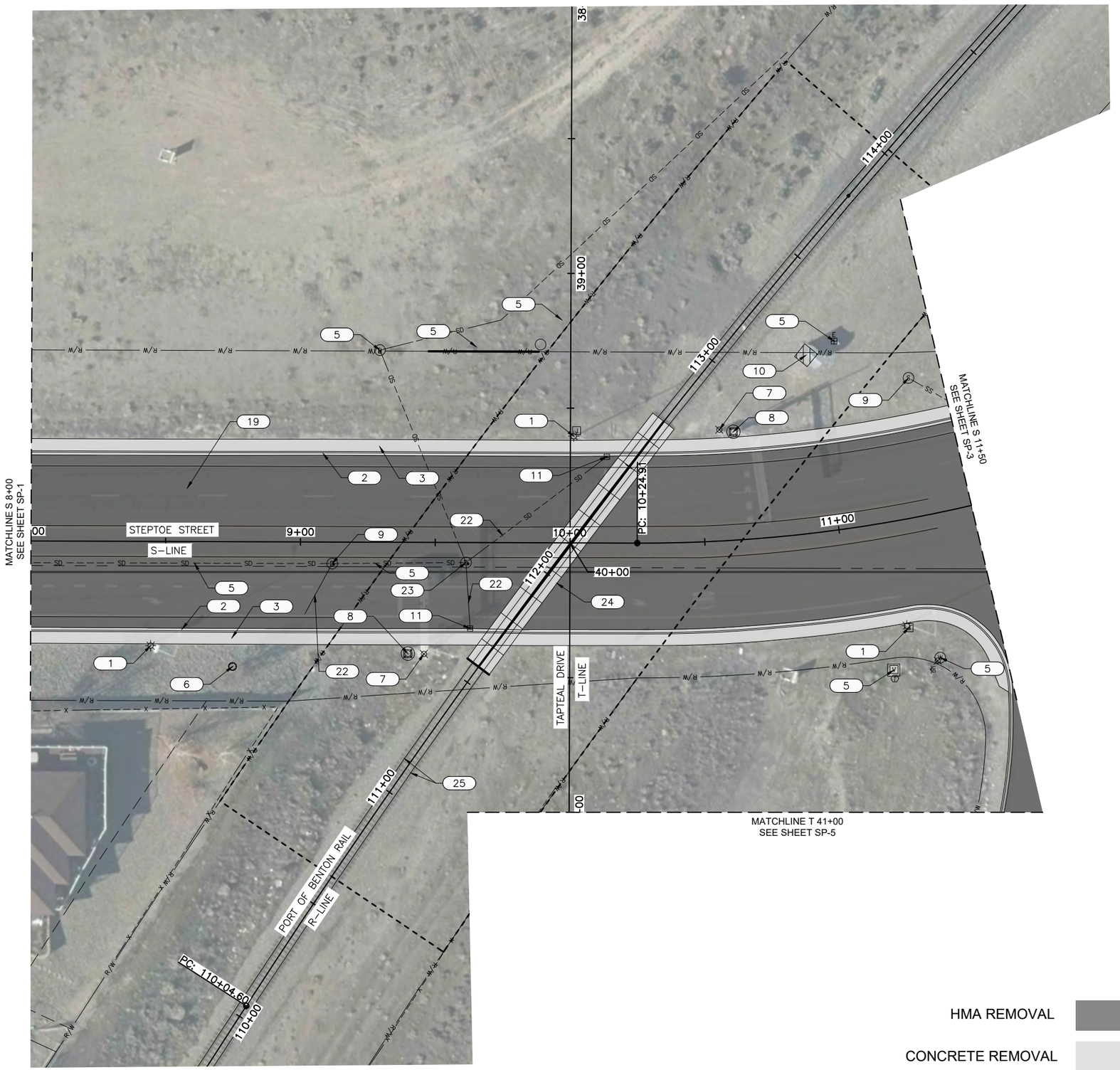
FILE : 07-21-030_SP-1
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD

ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 8/30/2022

SHEET NUMBER:
SP-1

Plot Date:8/30/2022 3:34 PM Plotted By: William Gillen
Date Created:7/19/2022 \\JUB.COM\C-ENTRAL\CLIENTS\WAYCA\NGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_SP-1.DWG



KEYED NOTES

1. SALVAGE STREET LIGHT
2. REMOVE CEMENT CONC. CURB AND GUTTER
3. REMOVE CEMENT CONC. SIDEWALK
4. REMOVE TRAFFIC ISLAND
5. RETAIN AND PROTECT UTILITY
6. RETAIN AND PROTECT TREE
7. SALVAGE GATE ARM. DELIVER TO XXX
8. SALVAGE CANTILEVER. DELIVER TO XXX
9. ADJUST MANHOLE
10. SALVAGE AND DELIVER BUNGALOW
11. REMOVE CONC. INLET
12. ADJUST VALVE BOX
13. REMOVE SIGN
14. RETAIN AND PROTECT WING WALL
15. REMOVE CHAIN LINK FENCE
16. RELOCATE UTILITY (BY OTHERS)
17. RETAIN AND PROTECT SIGN
18. REMOVE RETAINING WALL
19. REMOVE ASPHALT CONC. PAVEMENT
20. REMOVE DRYWELL
21. REMOVE AND RESET SURVEY MONUMENT
22. ABANDON EXISTING STORM SEWER PIPE
23. REMOVE MANHOLE
24. REMOVE ALL RAIL CROSSING PANELS
25. REMOVE RAIL FROM STA 110+04.60 TO STA XX+XX.00

HMA REMOVAL

CONCRETE REMOVAL

HORZ 0 20 40
VERT 0 5 10
SCALE IN FEET

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	REVISION			

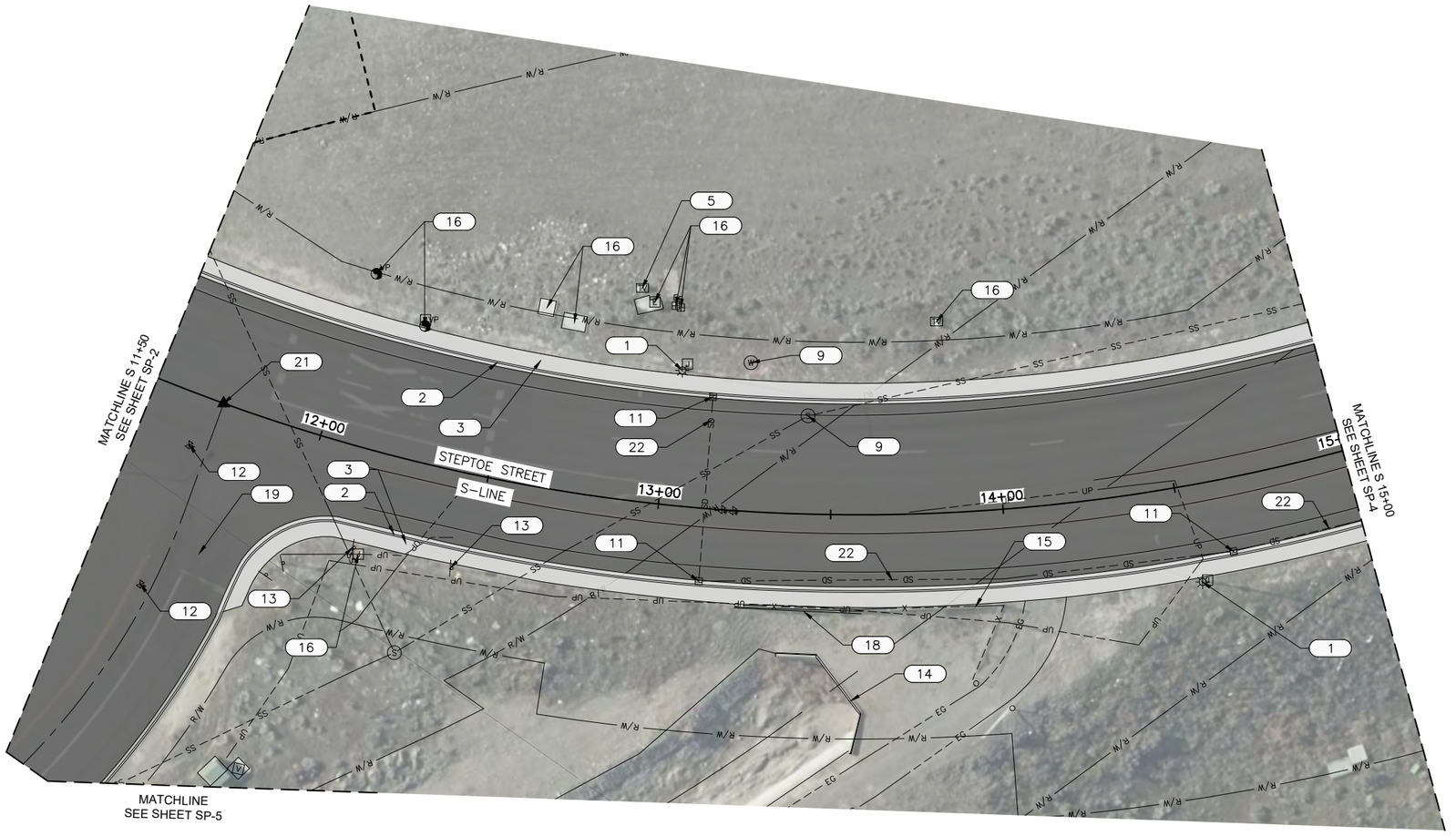
STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

SITE PREPARATION
STA 8+00.00 TO STA 11+50.00

FILE: 07-21-030_SP-2
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 7/27/2022

SHEET NUMBER:
SP-2

Plot Date:8/30/2022 3:04 PM Plotted By: William Gillen
Date Created7/27/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_SP-2.DWG



KEYED NOTES

1. SALVAGE STREET LIGHT
2. REMOVE CEMENT CONC. CURB AND GUTTER
3. REMOVE CEMENT CONC. SIDEWALK
4. REMOVE TRAFFIC ISLAND
5. RETAIN AND PROTECT UTILITY
6. RETAIN AND PROTECT TREE
7. SALVAGE GATE ARM. DELIVER TO XXX
8. SALVAGE CANTILEVER. DELIVER TO XXX
9. ADJUST MANHOLE
10. REMOVE BUNGALOW
11. REMOVE CONC. INLET
12. ADJUST VALVE BOX
13. REMOVE SIGN
14. RETAIN AND PROTECT WING WALL
15. REMOVE CHAIN LINK FENCE
16. RELOCATE UTILITY (BY OTHERS)
17. RETAIN AND PROTECT SIGN
18. REMOVE RETAINING WALL
19. REMOVE ASPHALT CONC. PAVEMENT
20. REMOVE DRYWELL
21. REMOVE AND RESET SURVEY MONUMENT
22. ABANDON EXISTING STORM SEWER PIPE

HMA REMOVAL

CONCRETE REMOVAL

HORZ 0 20 40
VERT 0 5 10
SCALE IN FEET

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	REVISION			

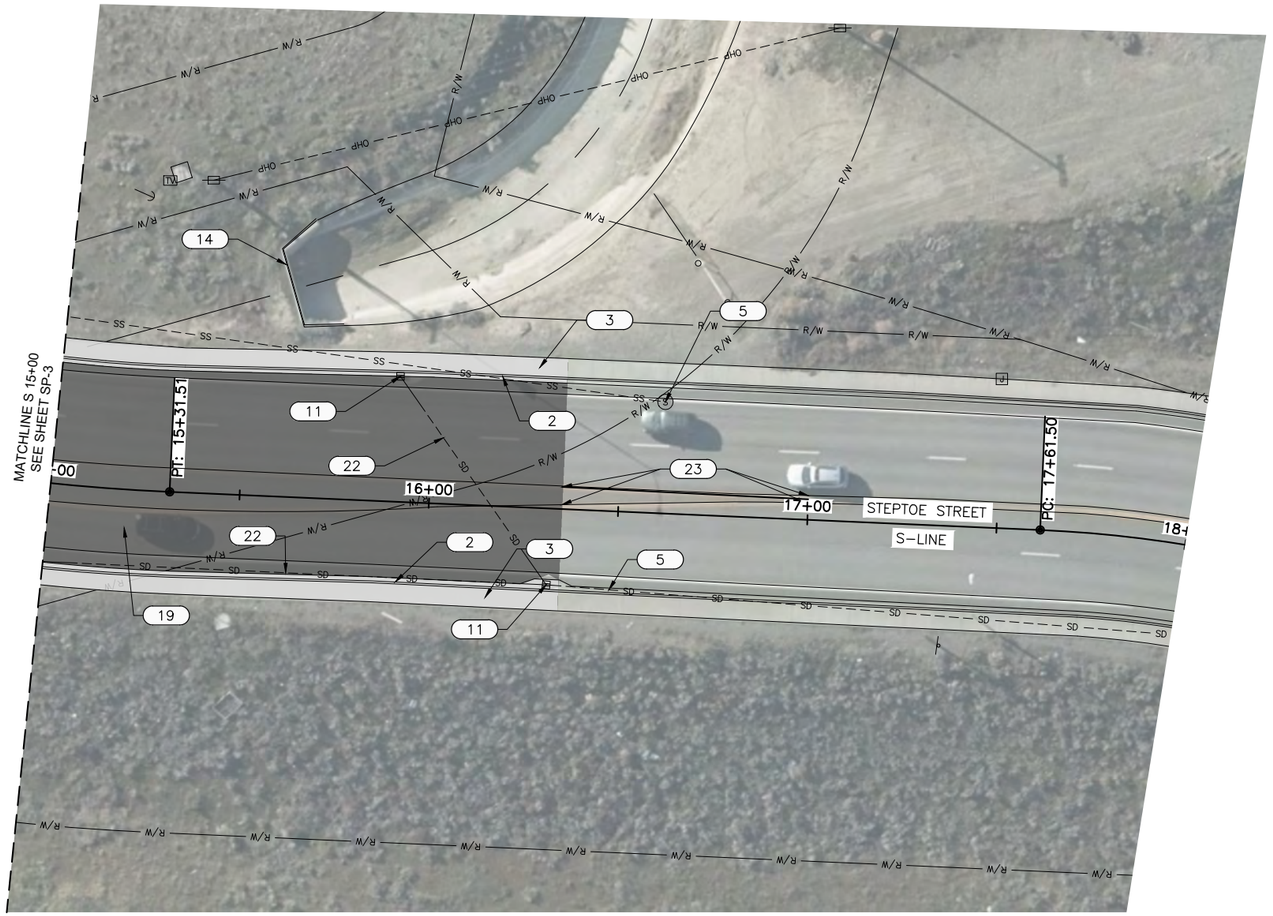
STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

SITE PREPARATION
STA 11+50.00 TO STA 15+00.00

FILE : 07-21-030_SP-3
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 4/1/2022

SHEET NUMBER:
SP-3

Plot Date:8/30/2022 3:04 PM Plotted By: William Gillan
Date Created:4/1/2022 \\JUB.COM\CENTRAL\CLIENTS\WAYOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_SP-3.DWG



KEYED NOTES

1. SALVAGE STREET LIGHT
2. REMOVE CEMENT CONC. CURB AND GUTTER
3. REMOVE CEMENT CONC. SIDEWALK
4. REMOVE TRAFFIC ISLAND
5. RETAIN AND PROTECT UTILITY
6. RETAIN AND PROTECT TREE
7. SALVAGE GATE ARM. DELIVER TO XXX
8. SALVAGE CANTILEVER. DELIVER TO XXX
9. ADJUST MANHOLE
10. REMOVE BUNGALOW
11. REMOVE CONC. INLET
12. ADJUST VALVE BOX
13. REMOVE SIGN
14. RETAIN AND PROTECT WING WALL
15. REMOVE CHAIN LINK FENCE
16. RELOCATE UTILITY (BY OTHERS)
17. RETAIN AND PROTECT SIGN
18. REMOVE RETAINING WALL
19. REMOVE ASPHALT CONC. PAVEMENT
20. REMOVE DRYWELL
21. REMOVE AND RESET SURVEY MONUMENT
22. ABANDON EXISTING STORM SEWER PIPE
23. PARTIAL DOUBLE YELLOW PAINT LINE REMOVAL

HMA REMOVAL

CONCRETE REMOVAL

HORZ 0 20 40
VERT 0 5 10
SCALE IN FEET

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	REVISION			

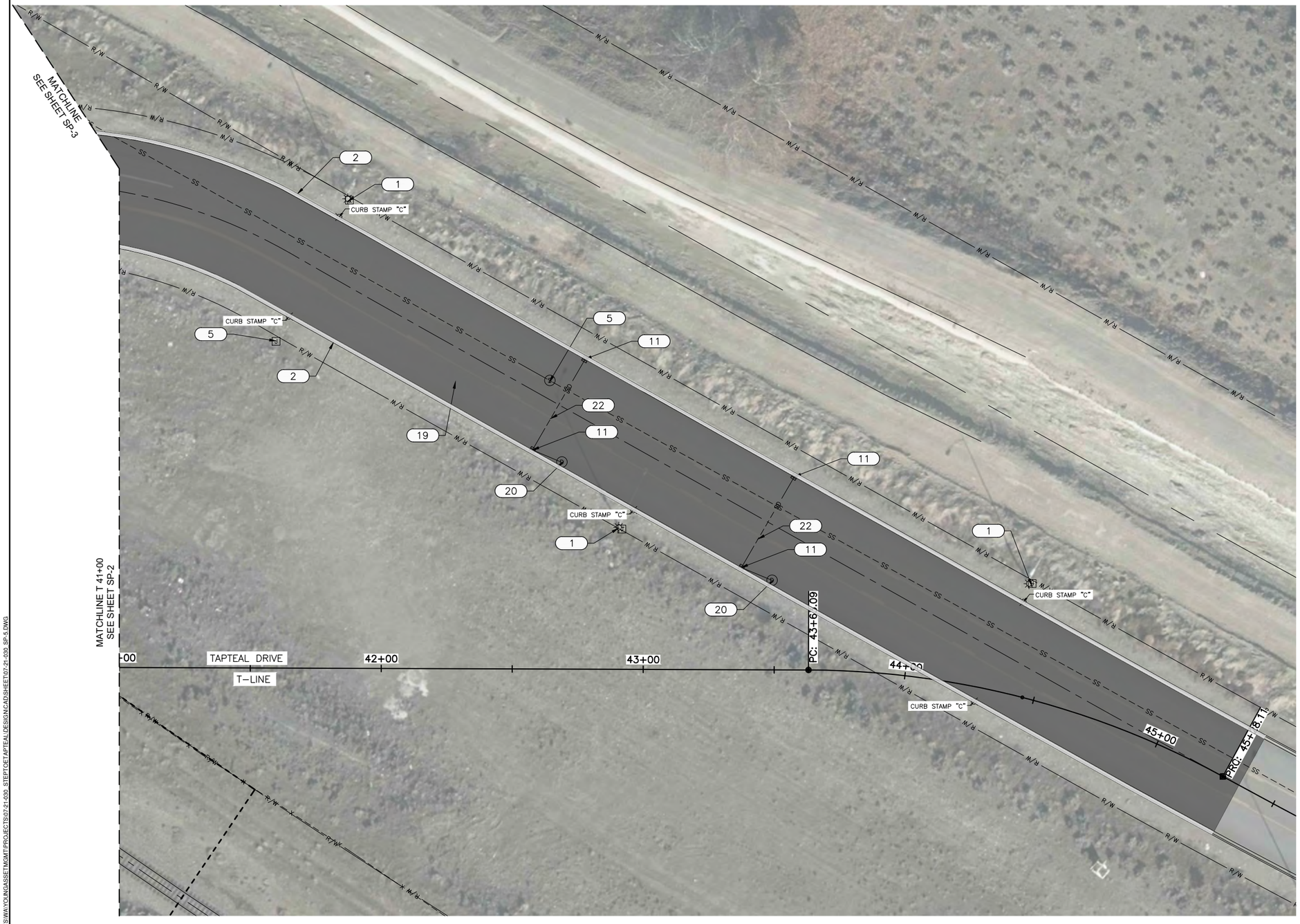
STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

SITE PREPARATION
STA 15+00.00 TO STA 18+00.00

FILE : 07-21-030_SP-4
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 7/28/2022

SHEET NUMBER:
SP-4

Plot Date:8/30/2022 3:35 PM Plotted By: William Gillen
Date Created:7/19/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_SP-4.DWG



KEYED NOTES

1. SALVAGE STREET LIGHT
2. REMOVE CEMENT CONC. CURB AND GUTTER
3. REMOVE CEMENT CONC. SIDEWALK
4. REMOVE TRAFFIC ISLAND
5. RETAIN AND PROTECT UTILITY
6. RETAIN AND PROTECT TREE
7. SALVAGE GATE ARM. DELIVER TO XXX
8. SALVAGE CANTILEVER. DELIVER TO XXX
9. ADJUST MANHOLE
10. REMOVE BUNGALOW
11. REMOVE CONC. INLET
12. ADJUST VALVE BOX
13. REMOVE SIGN
14. RETAIN AND PROTECT WING WALL
15. REMOVE CHAIN LINK FENCE
16. RELOCATE UTILITY (BY OTHERS)
17. RETAIN AND PROTECT SIGN
18. REMOVE RETAINING WALL
19. REMOVE ASPHALT CONC. PAVEMENT
20. REMOVE DRYWELL
21. REMOVE AND RESET SURVEY MONUMENT
22. ABANDON EXISTING STORM SEWER PIPE

HMA REMOVAL

CONCRETE REMOVAL

HORZ 0 20 40

VERT 0 5 10

SCALE IN FEET

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	REVISION			

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

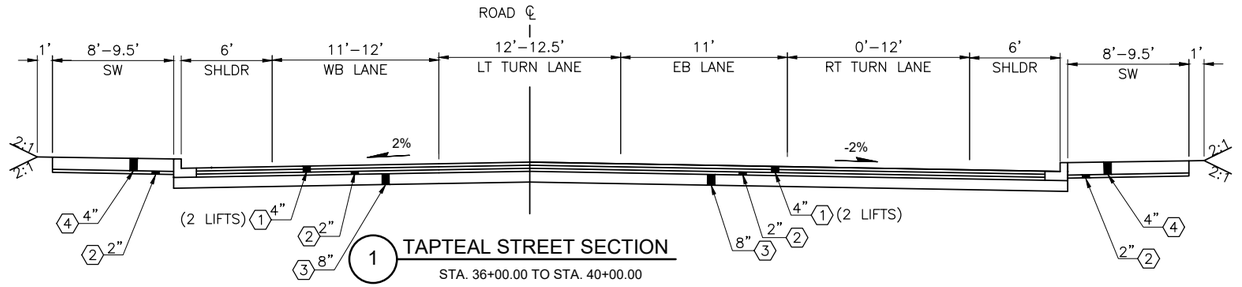
SITE PREPARATION
STA 41+00.00 TO STA 45+50.00

FILE : 07-21-030_SP-5
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 7/19/2022

SHEET NUMBER:
SP-5

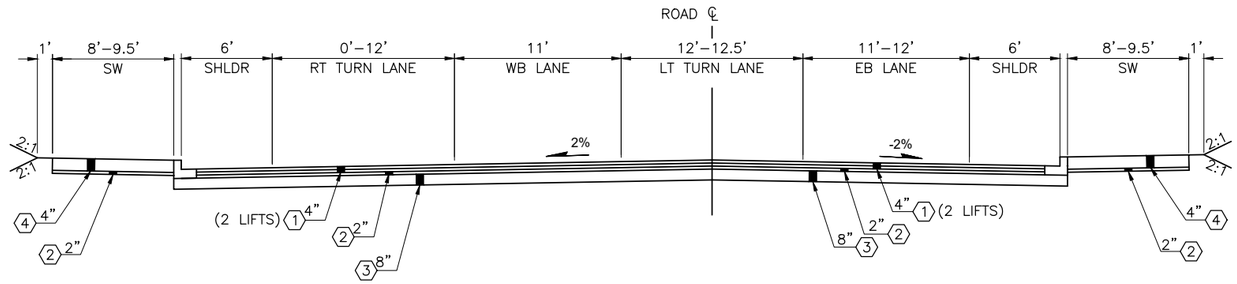
Plot Date:8/30/2022 3:35 PM Plotted By: William Gillen
Date Created:7/19/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNG\ASSETMGMT\PROJECTS\07-21-030_STEPTOE\TAPTEAL\DESIGN\CAD\SHEET\07-21-030_SP-5.DWG

TYPICAL LANE LAYOUT



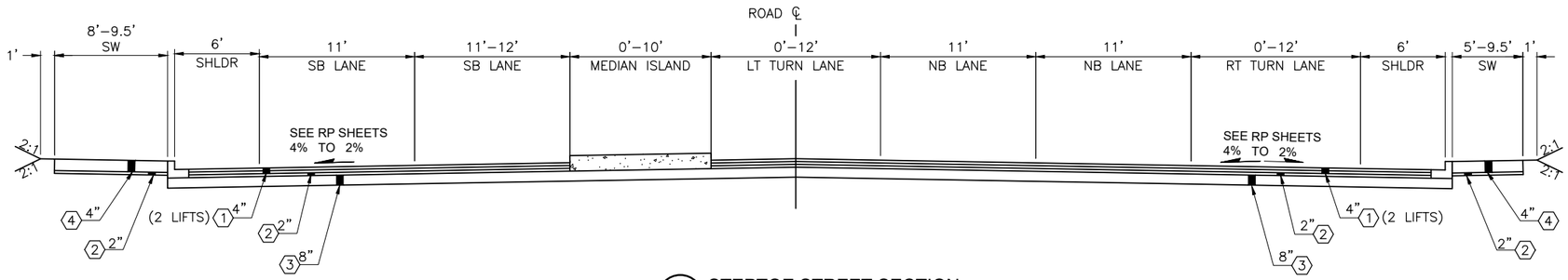
1 TAPTEAL STREET SECTION

STA. 36+00.00 TO STA. 40+00.00



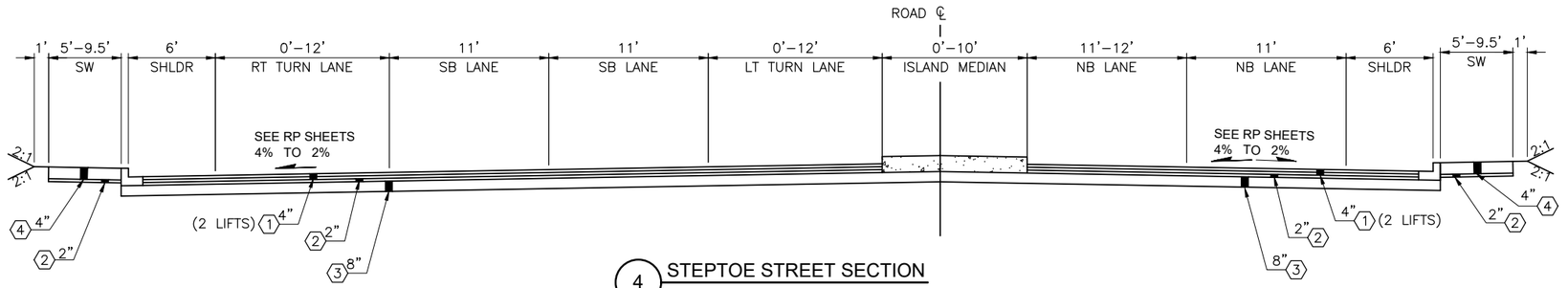
2 TAPTEAL STREET SECTION

STA. 40+00.00 TO STA. 45+28.11



3 STEPTOE STREET SECTION

STA. 6+00.00 TO STA. 10+00.00



4 STEPTOE STREET SECTION

STA. 10+00.00 TO STA. 17+61.50

KEYED NOTES

SURFACING LEGEND

1. HMA CL. 1/2 IN. PG 64–28
2. CRUSHED SURFACING TOP COARSE
3. CRUSHED SURFACING BASE COARSE
4. CEMENT CONC. SIDEWALK

GENERAL NOTES

1. SEE COR STD PLAN ST1 FOR CURB, GUTTER, AND SIDEWALK.
2. SEE ROADWAY PLANS FOR SIDEWALK, MEDIAN, AND LANE WIDTH TRANSITIONS.

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NO.	DESCRIPTION	BY	APP.	DATE
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STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

ROADWAY SECTIONS

FILE : 07-21-030_RS-1
JUB PROJ. # : 07-21-030
DRAWN BY: ###
DESIGN BY: ###
CHECKED BY: ###

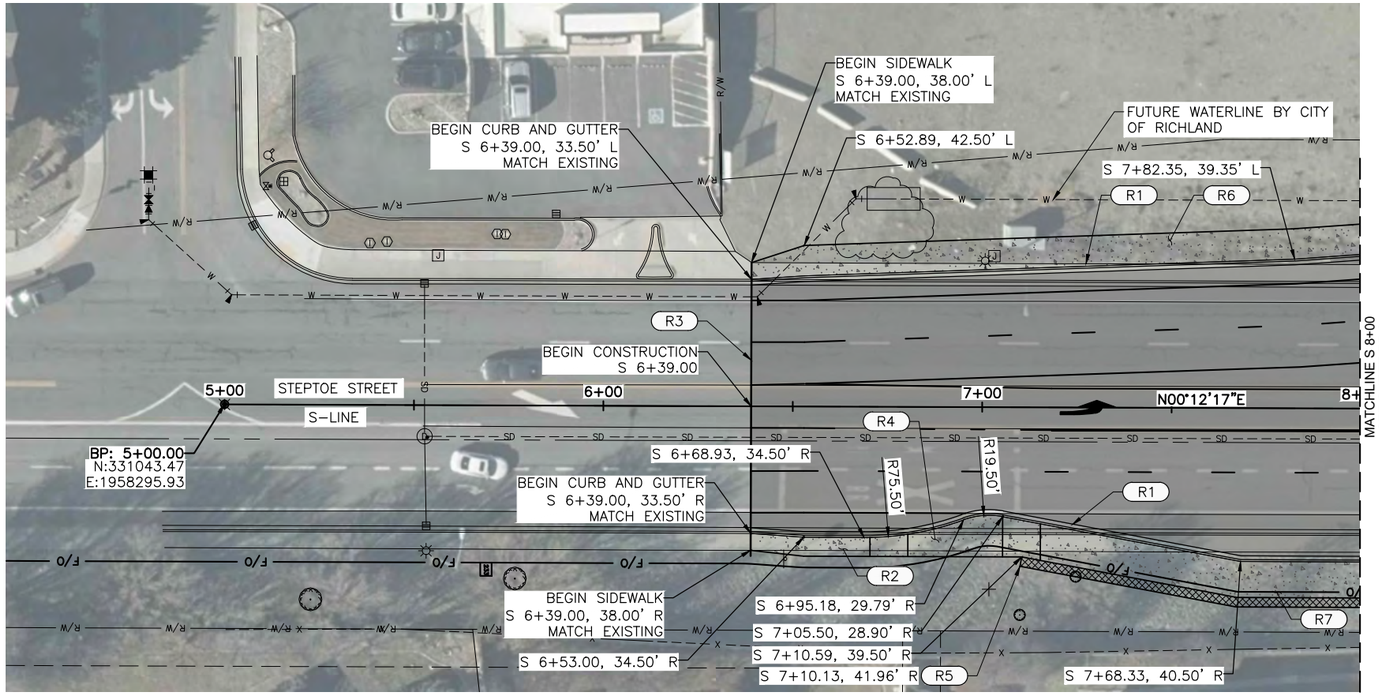
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

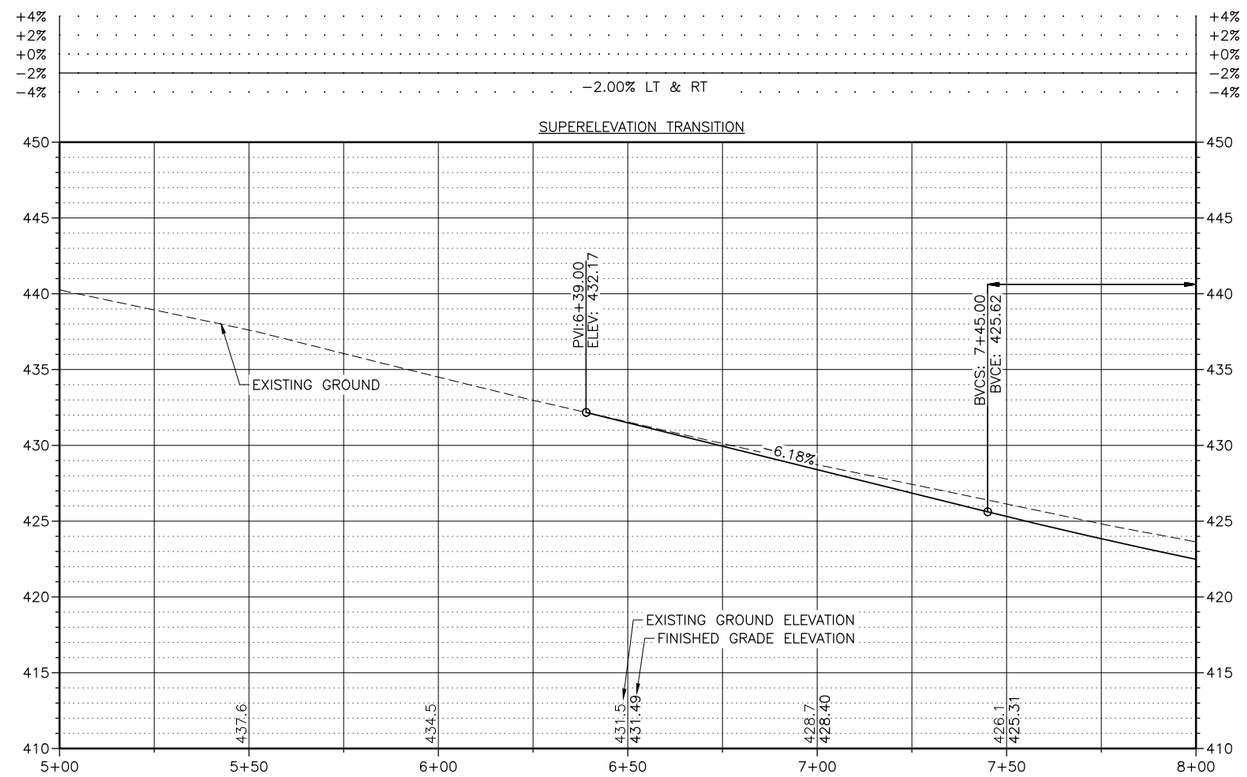
LAST UPDATED: 7/30/2022

SHEET NUMBER:

RS-1

Plot Date:8/30/2022 3:35 PM Plotted By: William Gillen
Date Created:7/30/2022 \\JUB.COM\C-CENTRAL\CLIENTS\WA\YOUNG\ASSETMGMT\PROJECTS\07-21-030_STEPTOE\TAPTEAL\DESIGN\CAD\SHEET\07-21-030_RS-1.DWG





CONSTRUCTION NOTES

- (R1) CEMENT CONC. TRAFFIC CURB AND GUTTER
- (R2) 5' CEMENT CONC. SIDEWALK
- (R3) MATCH EXISTING PAVEMENT SAWCUT REQUIRED
- (R4) SEE PAVING DETAILS
- (R5) BEGIN GRAVITY BLOCK WALL, SEE SHEET RP-8
- (R6) 8' CEMENT CONC. SIDEWALK
- (R7) 9.5' CEMENT CONC. SIDEWALK

LEGEND

- PROPOSED HOT MIX ASPHALT (HMA)
- PROPOSED CONCRETE

HORZ 0 20 40
VERT 0 5 10
SCALE IN FEET

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NO.	DESCRIPTION	BY	APR.	DATE
REVISION				

STEPTOE AND TAPTEAL INTERSECTION YOUNG ASSET MANAGMENT

ROADWAY PLAN AND PROFILE
STA 5+00.00 TO STA 8+00.00

FILE : 07-21-030_RP-1
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD

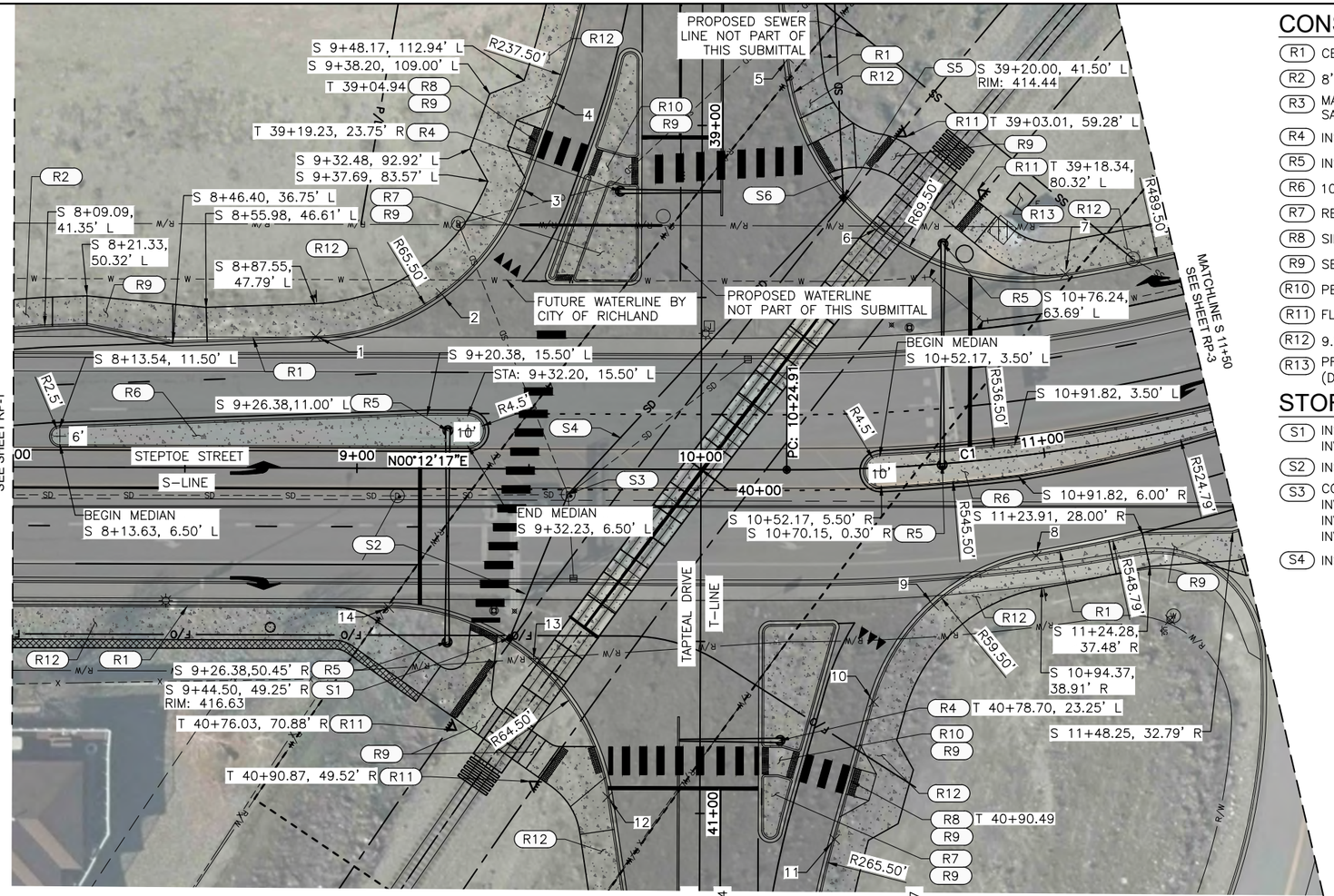
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

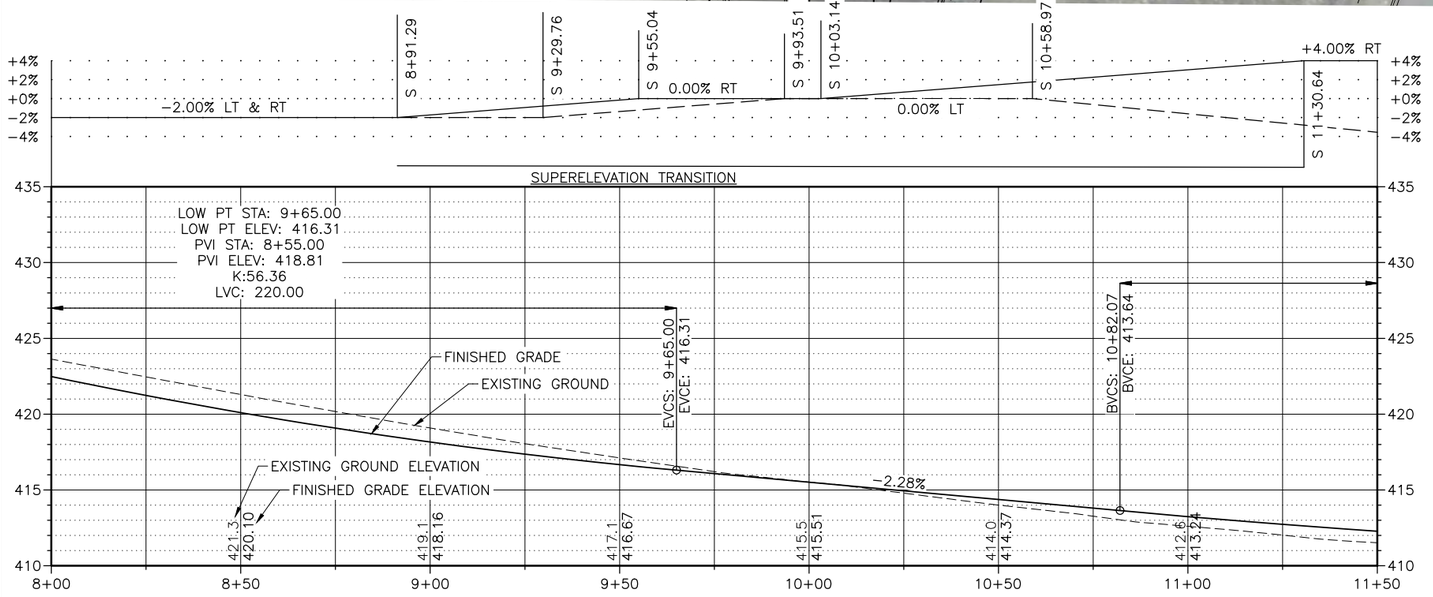
LAST UPDATED: 10/3/2022

SHEET NUMBER:

RP-1

Plot Date:10/3/2022 1:18 PM Plotted By: William Gillen
Date Created:10/3/2022 \\JUB.COM\CENTRAL\CLIENTS\WAYO\JNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEALDESIGN\CAD\SHEET\07-21-030_RP-1.DWG





CONSTRUCTION NOTES

- (R1) CEMENT CONC. TRAFFIC CURB AND GUTTER
- (R2) 8' CEMENT CONC. SIDEWALK
- (R3) MATCH EXISTING PAVEMENT SAWCUT REQUIRED
- (R4) INSTALL 29.0' GATE
- (R5) INSTALL 30.5' GATE
- (R6) 10' RAISED MEDIAN
- (R7) REFUGE ISLAND
- (R8) SIDEWALK RAMP TYPE 1A
- (R9) SEE PAVING DETAILS
- (R10) PEDESTRIAN CUT−THROUGH
- (R11) FLASHERS (SIDE, FRONT, AND BACK LIGHTS)
- (R12) 9.5' CEMENT CONC. SIDEWALK
- (R13) PROVIDE RAILROAD EQUIPMENT HOUSE (DESIGN TBD FOR 95% SUBMITTAL)

STORMWATER NOTES

- (S1) INSTALL TYPE 1 CATCH BASIN (CB−1) INV OUT: 413.66'
- (S2) INSTALL 12" STORM SEWER PIPE, 45 LF
- (S3) CONNECT S2 AND S4 TO EXISTING MANHOLE. INV IN (E): 413.44 INV IN (S): 408.30 INV OUT (W): 408.20
- (S4) INSTALL 18" STORM SEWER PIPE, 118 LF
- (S5) INSTALL TYPE 1 CATCH BASIN (CB−2) INV IN: 407.61 INV OUT: 407.51'
- (S6) INSTALL 18" STORM SEWER PIPE, 64 LF

ALIGNMENT CURVE TABLE

CURVE #	LENGTH	RADIUS	TANGENT	DELTA	CHORD DIRECTION	CHORD LENGTH
C1	506.60'	540.00'	273.67'	53°45'07"	N26°40'17"W	488.23'

TBC ELEVATIONS

POINT #	NORTHING	EASTING	ELEVATION
1	331431.51	1958259.01	0.00
2	331467.84	1958246.51	0.00
3	331490.91	1958215.78	0.00
4	331500.04	1958190.46	0.00
5	331568.96	1958178.20	0.00
6	331595.51	1958227.12	0.00
7	331649.45	1958240.87	0.00
8	331640.93	1958322.83	0.00
9	331611.15	1958337.23	0.00
10	331593.66	1958365.29	0.00
11	331582.37	1958405.23	0.00
12	331516.33	1958392.94	0.00
13	331494.75	1958353.63	0.00
14	331452.76	1958337.89	0.00

LEGEND

- PROPOSED HOT MIX ASPHALT (HMA)
- PROPOSED CONCRETE

HORZ 0 20 40
VERT 0 5 10
SCALE IN FEET

J-U-B ENGINEERS, INC.
J-U-B ENGINEERS, INC.
2810 W. Clearwater Ave.
Suite 201
Kennewick, WA 99336
Phone: 509.783.2144
www.jub.com

NO.	DESCRIPTION	BY	APP.	DATE
	REVISION			

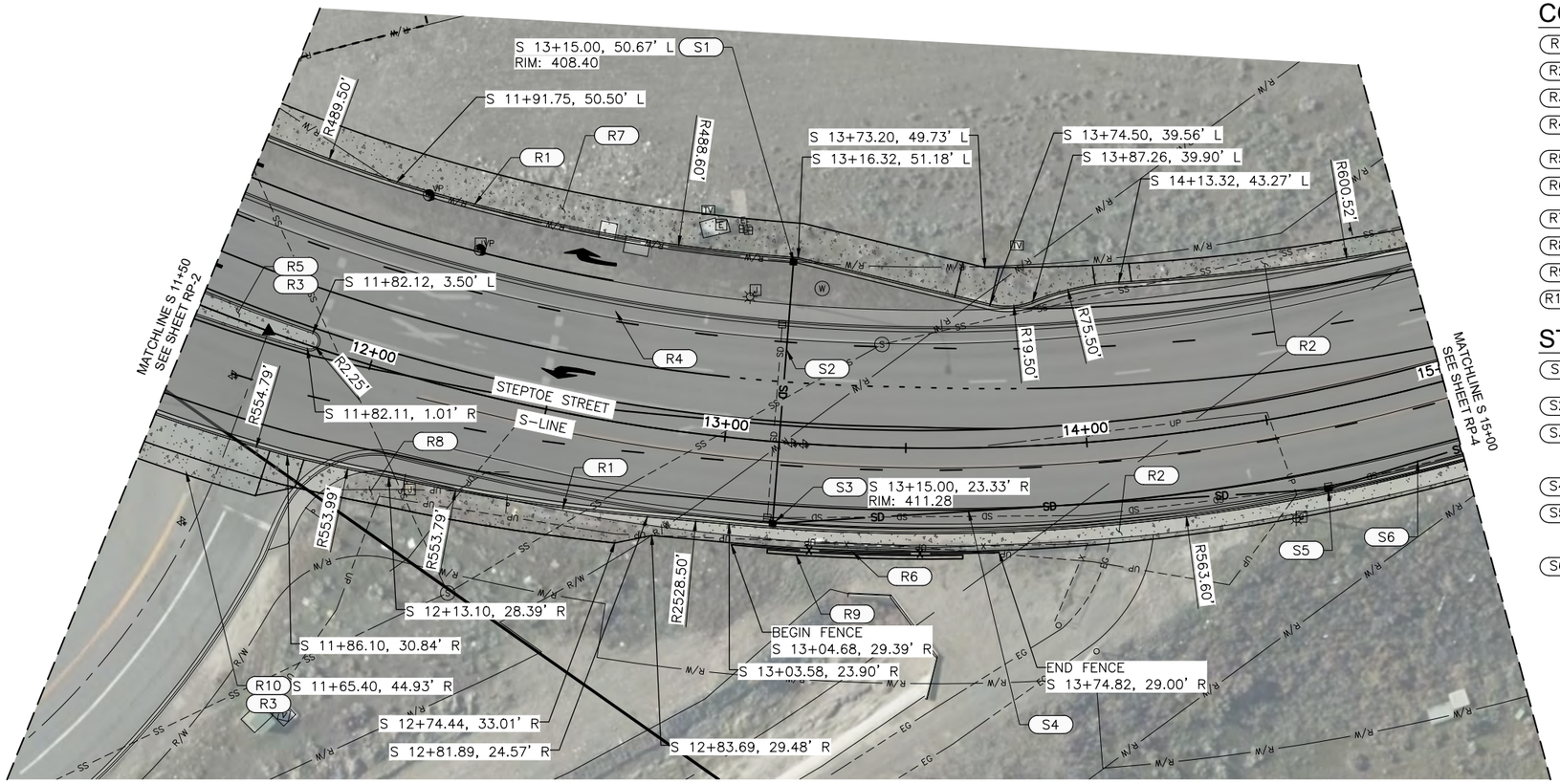
STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

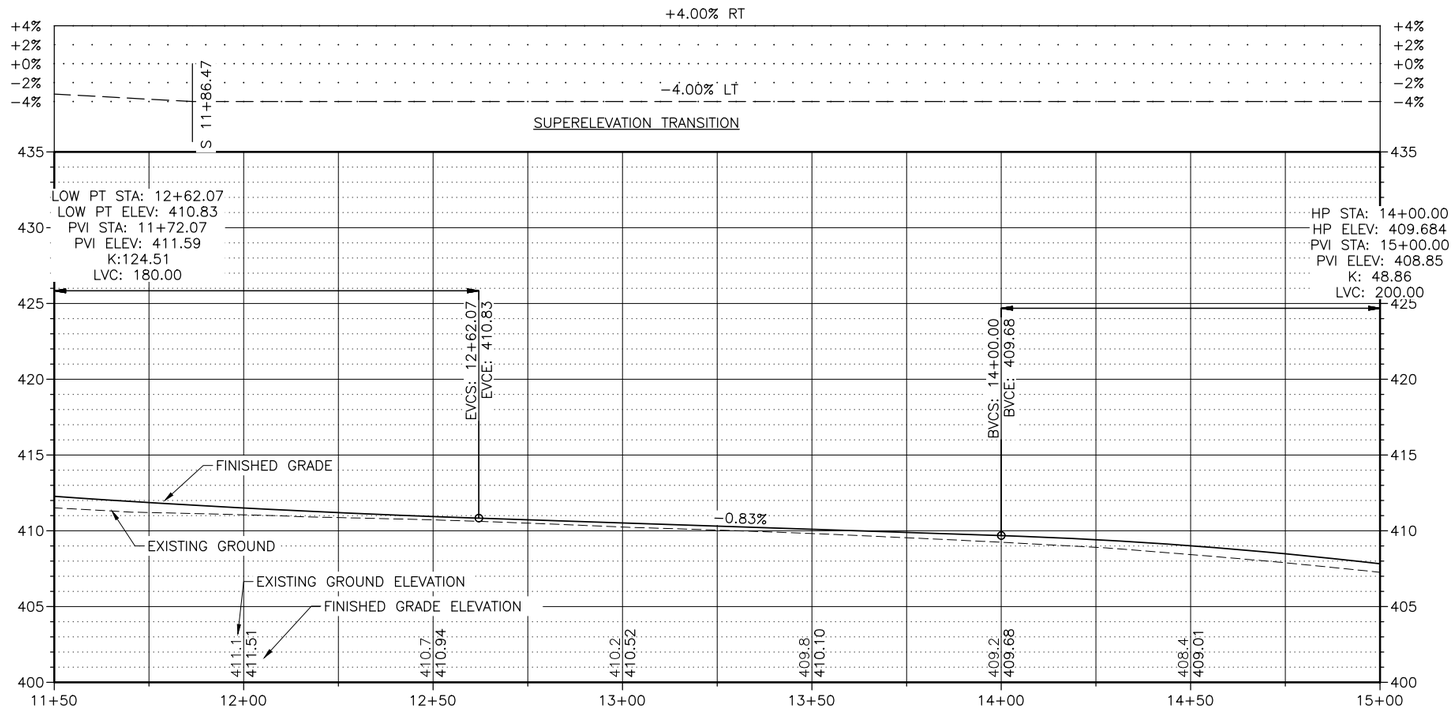
ROADWAY PLAN AND PROFILE
STA 8+00.00 TO STA. 11+50.00

FILE : 07-21-030_RP-2
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 10/3/2022

SHEET NUMBER:
RP-2

Plot Date:10/3/2022 1:18 PM Plotted By: William Gilkin
Date Created:10/3/2022 \\JUB.COM\CENTRAL\CLIENTS\WAYOUNG\ASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_RP-2.DWG





CONSTRUCTION NOTES

- (R1) CEMENT CONC. TRAFFIC CURB AND GUTTER
- (R2) 5' CEMENT CONC. SIDEWALK
- (R3) SEE PAVING DETAILS
- (R4) MATCH EXISTING PAVEMENT SAWCUT REQUIRED
- (R5) 10' RAISED MEDIAN
- (R6) CONSTRUCT TYPE 3 CHAIN LINK FENCE 77 LF
- (R7) 9.5' CEMENT CONC. SIDEWALK
- (R8) 8.0' CEMENT CONC. SIDEWALK
- (R9) GRAVITY BLOCK WALL, SEE SHEET RP-9
- (R10) STANDARD NON-RESEDENTIAL DRIVEWAY (TYPE 1)

STORMWATER NOTES

- (S1) INSTALL TYPE 1 CATCH BASIN (CB-3) INV OUT: 405.40'
- (S2) INSTALL 12" STORM SEWER PIPE, 72.5 LF
- (S3) INSTALL TYPE 1 CATCH BASIN (CB-4) INV IN: 405.04' INV OUT: 404.94'
- (S4) INSTALL 12" STORM SEWER PIPE, 154 LF
- (S5) INSTALL TYPE 1 CATCH BASIN (CB-5) INV IN: 405.17' INV OUT: 405.07'
- (S6) INSTALL 12" STORM SEWER PIPE, 171 LF

LEGEND

- PROPOSED HOT MIX ASPHALT (HMA)
- PROPOSED CONCRETE

HORZ 0 20 40
VERT 0 5 10
SCALE IN FEET

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Kennewick, WA 99336
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NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

ROADWAY PLAN AND PROFILE
STA 11+50.00 TO STA 15+00.00

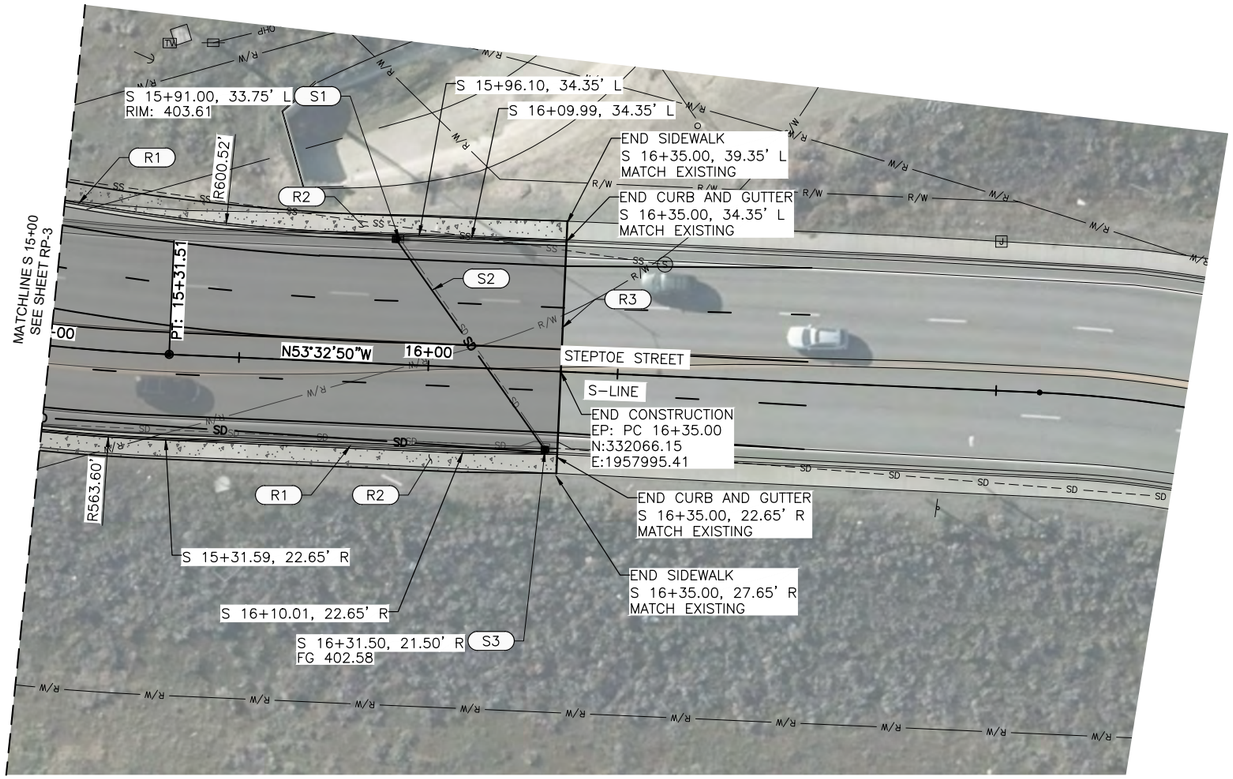
FILE : 07-21-030_RP-3
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD

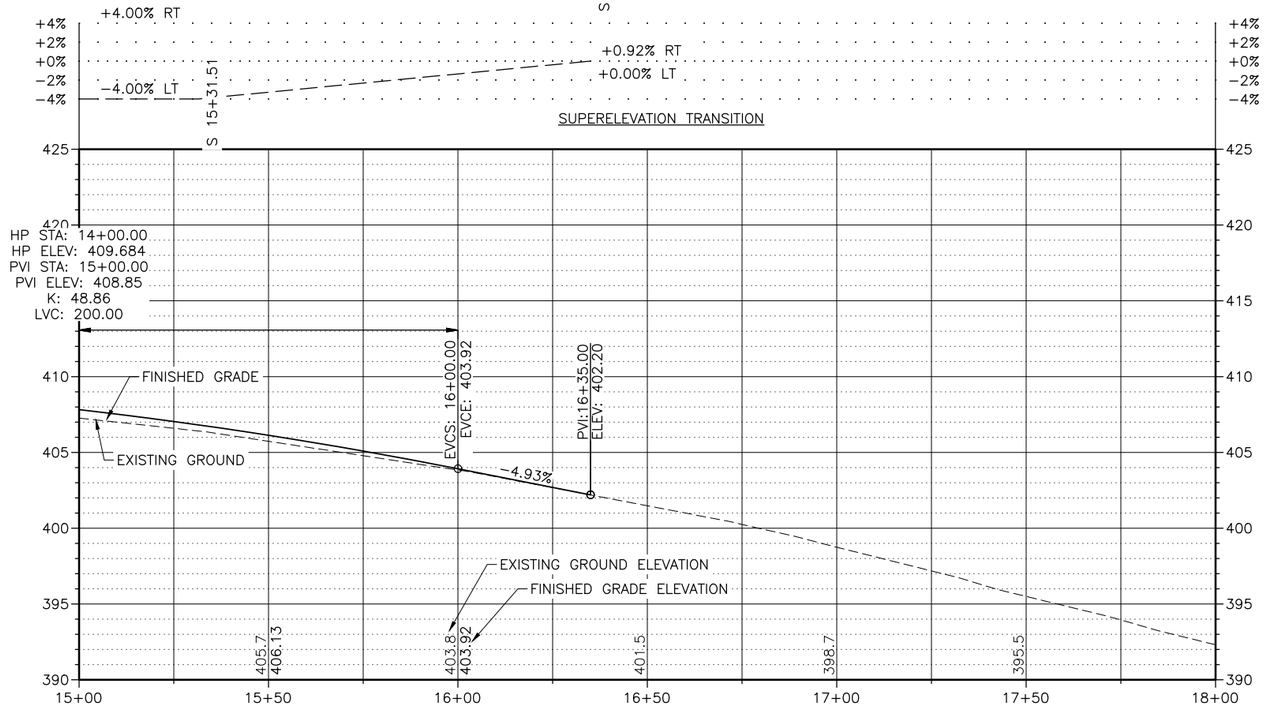
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 8/29/2022

SHEET NUMBER:
RP-3

Plot Date:8/30/2022 3:37 PM Plotted By: William Gillen
Date Created:8/29/2022 \\JUB.COM\C-CENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_RP-3.DWG





CONSTRUCTION NOTES

(R1) CEMENT CONC. TRAFFIC CURB AND GUTTER

(R2) 5' CEMENT CONC. SIDEWALK

(R3) MATCH EXISTING PAVEMENT
SAWCUT REQUIRED

STORMWATER NOTES

(S1) INSTALL TYPE 1 CATCH BASIN (CB-6)
INV OUT: 400.61'

(S2) INSTALL 12" STORM SEWER PIPE, 68 LF

(S3) DIG AND VERIFY LOCATION OF EXISTING PIPE
CONNECT EXISTING PIPE TO CB-7
INSTALL TYPE 1 CATCH BASIN (CB-7)
INV IN (S): 400.27'
INV IN (E): 404.22'
INV OUT (W): 401.50'

LEGEND

PROPOSED HOT MIX ASPHALT (HMA)

PROPOSED CONCRETE

HORZ 0 20 40
VERT 0 5 10
SCALE IN FEET

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	REVISION			

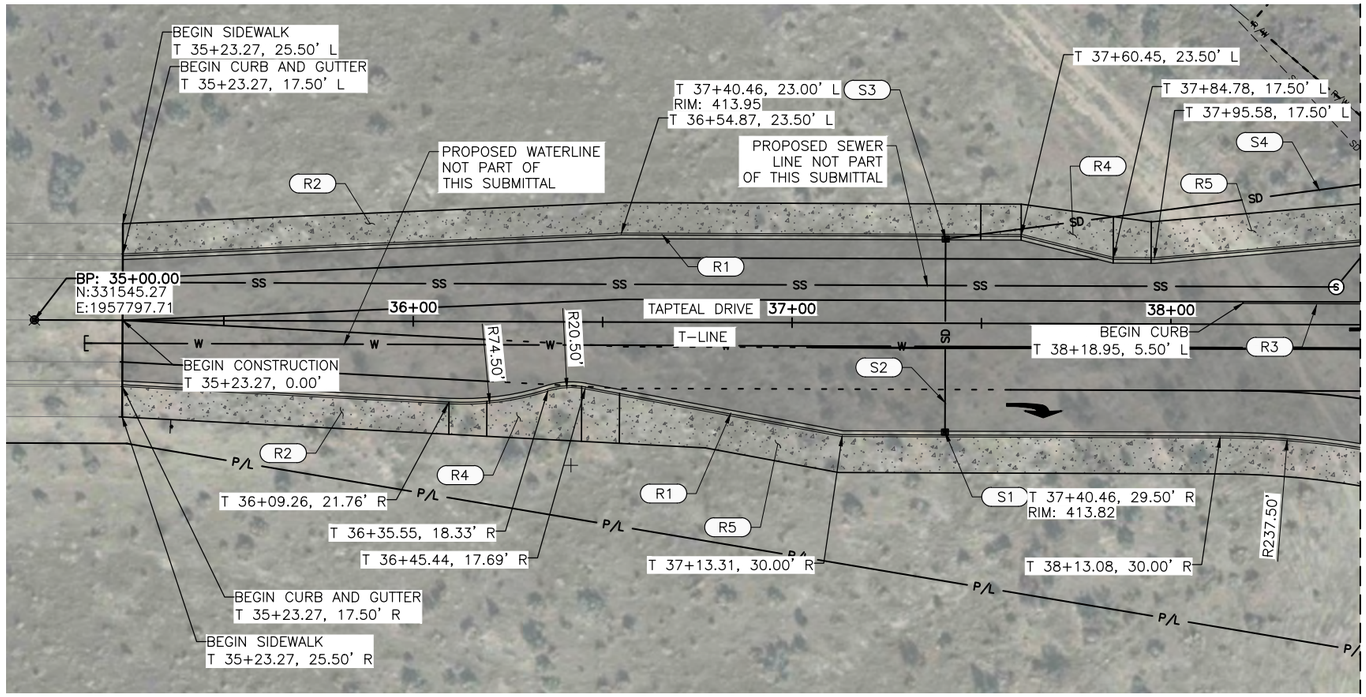
STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

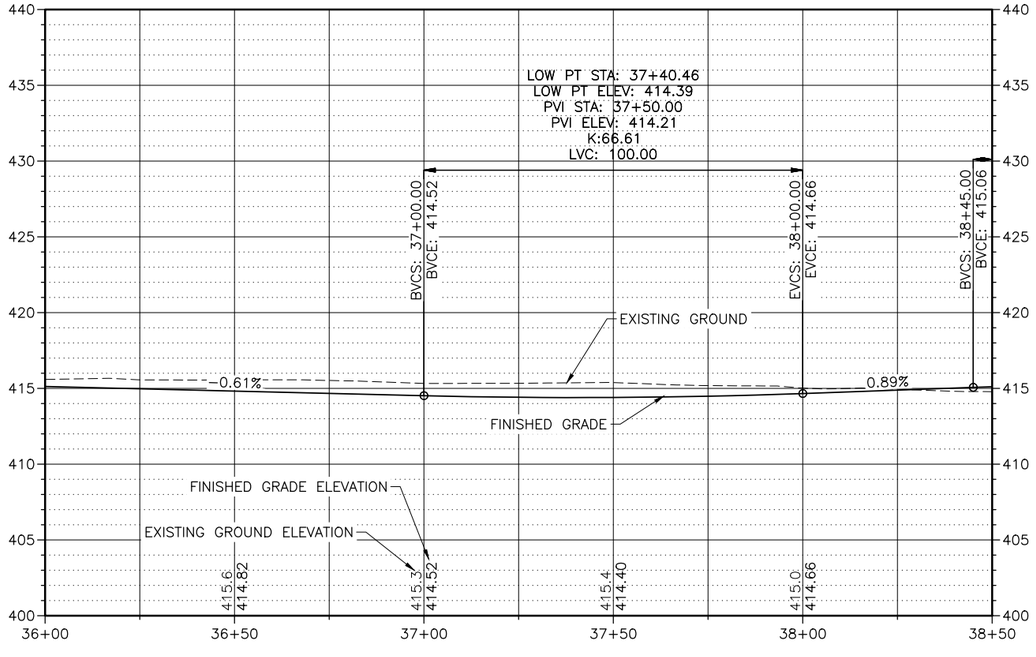
ROADWAY PLAN AND PROFILE
STA 15+00.00 TO STA 18+00.00

FILE : 07-21-030_RP-4
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/30/2022

SHEET NUMBER:
RP-4

Plot Date:8/30/2022 3:37 PM Plotted By: William Gillen
Date Created:8/29/2022 \\JUB.COM\CENTRAL\CLIENTS\WAYOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEALDESIGN\CADSHEET\07-21-030_RP-4.DWG





CONSTRUCTION NOTES

- (R1) CEMENT CONC. TRAFFIC CURB AND GUTTER
- (R2) 8' CEMENT CONC. SIDEWALK
- (R3) 0.5' CURB
- (R4) SEE PAVING DETAILS
- (R5) 10' CEMENT CONC. SIDEWALK

STORMWATER NOTES

- (S1) INSTALL TYPE 1 CATCH BASIN (CB–8)
  INV OUT: 410.82'
- (S2) INSTALL 12" STORM SEWER PIPE, 52.5 LF
- (S3) INSTALL TYPE 1 CATCH BASIN (CB–9)
  INV IN: 410.56'
  INV OUT: 410.46'
- (S4) INSTALL 12" STORM SEWER PIPE, 118 LF

LEGEND

PROPOSED HOT MIX ASPHALT (HMA)

PROPOSED CONCRETE

HORZ 0 20 40

VERT 0 5 10

SCALE IN FEET

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	REVISION	APR	

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

ROADWAY PLAN AND PROFILE
STA 36+00.00 TO STA 38+50.00

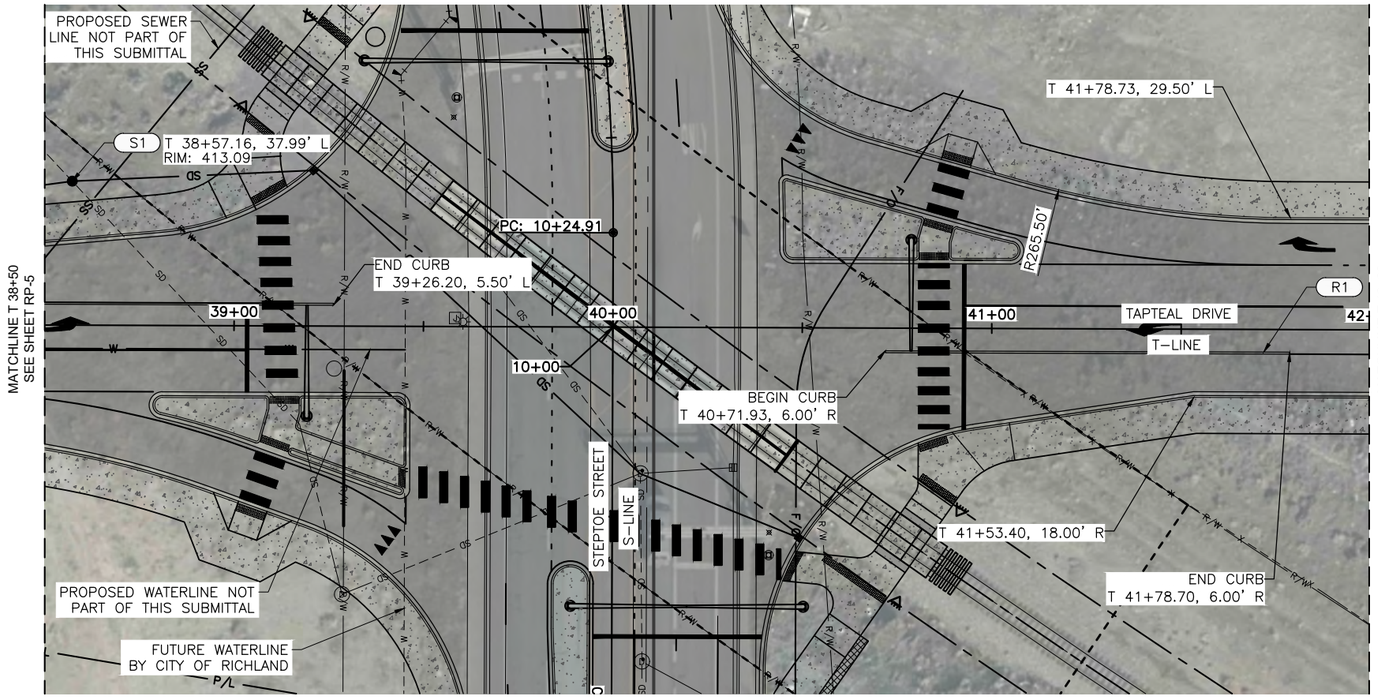
FILE : 07-21-030_RP-5
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD

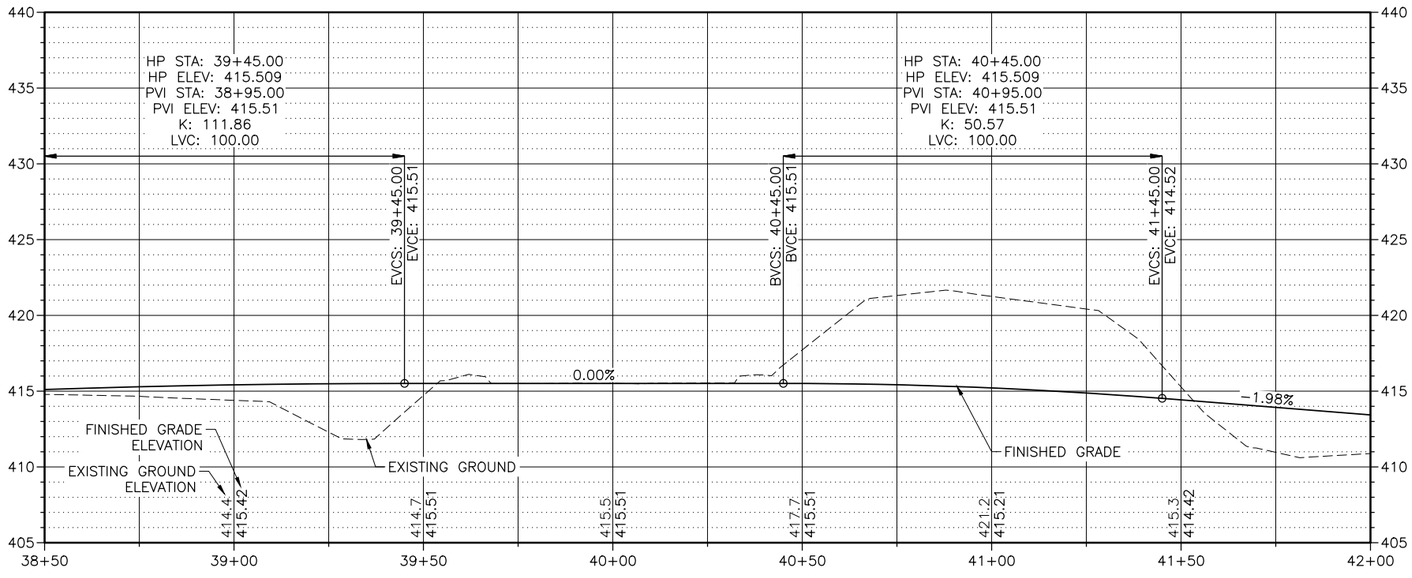
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 10/3/2022

SHEET NUMBER:
RP-5

Plot Date:10/3/2022 1:19 PM Plotted By: William Gilkin
Date Created:10/3/2022 \\JUB.COM\CENTRAL\CLIENTS\WAYOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEALDESIGN\CADSHEET\07-21-030_RP-5.DWG





CONSTRUCTION NOTES

(R1) 0.5' CURB

STORMWATER NOTES

(S1) DIG AND VERIFY LOCATION OF EXISTING PIPE
INSTALL TYPE 1 MANHOLE (MH-3) OVER EXISTING PIPE
INV IN: 402.00' (SE)
INV IN: 404.00' (E)
INV OUT: ~399.71 (NW-CONNECT TO EXISTING PIPE)

LEGEND

PROPOSED HOT MIX ASPHALT (HMA)

PROPOSED CONCRETE

HORZ 0 20 40
VERT 0 5 10
SCALE IN FEET

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NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

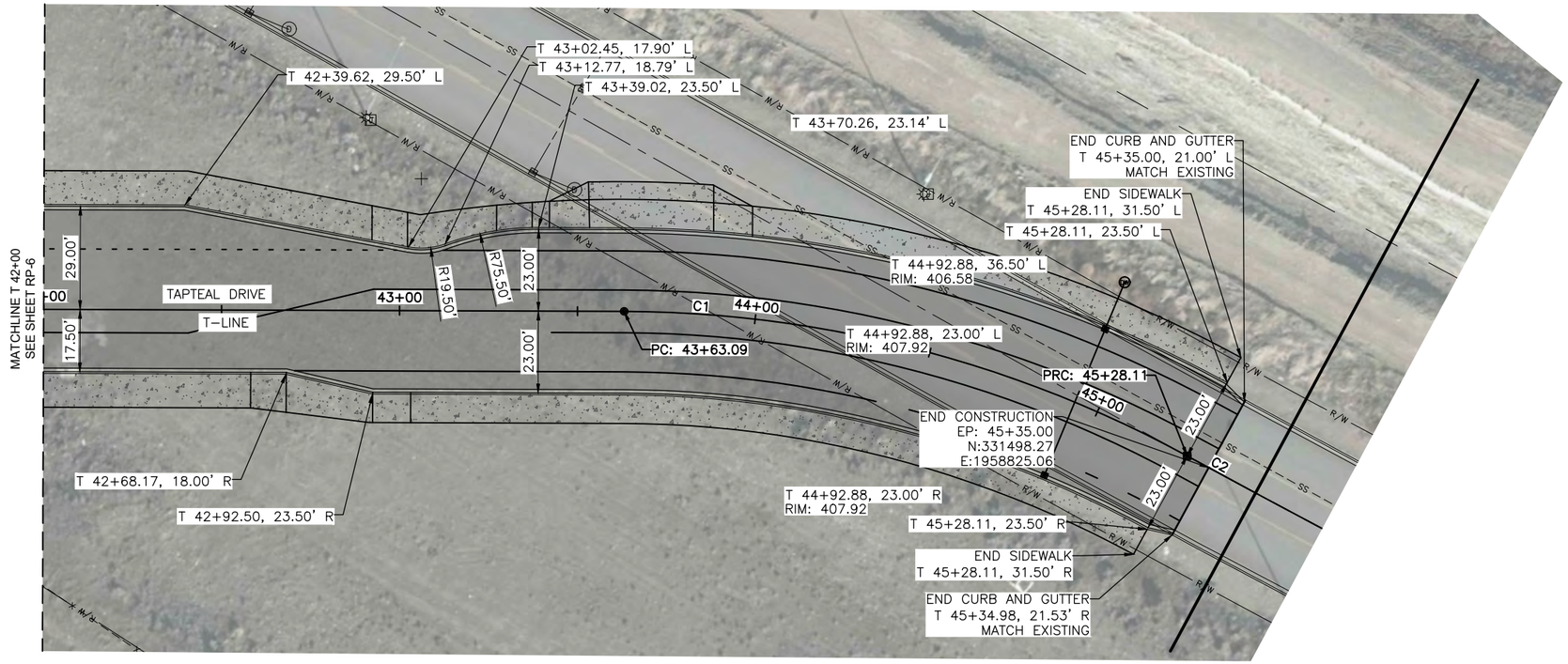
STEPTOE AND TAPTEAL INTERSECTION YOUNG ASSET MANAGMENT

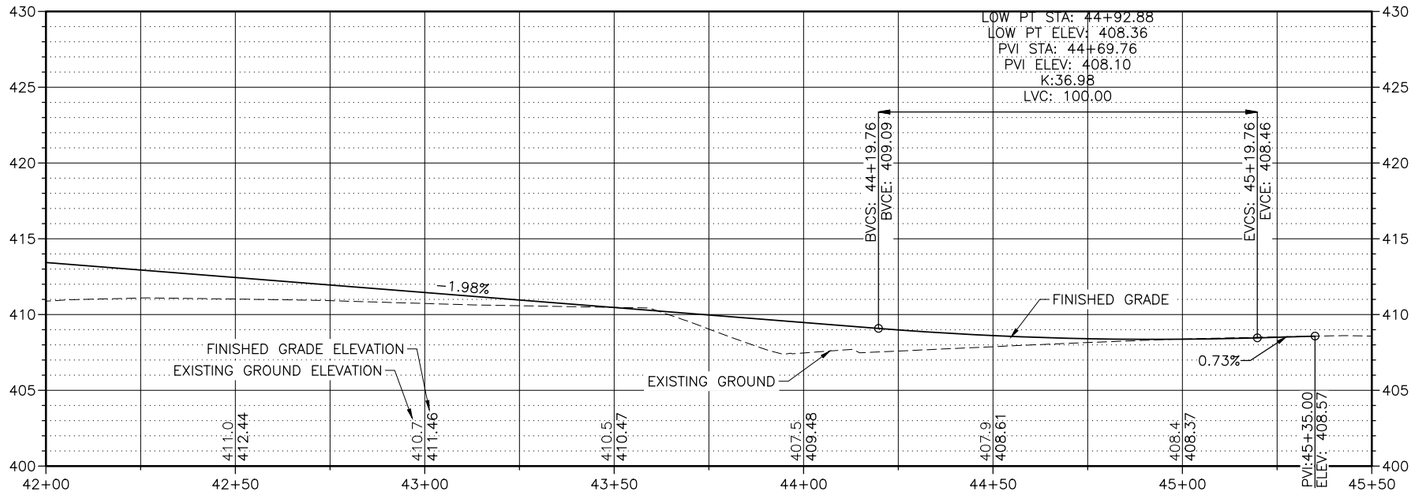
ROADWAY PLAN AND PROFILE STA 36+00.00 TO STA 38+50.00

FILE : 07-21-030_RP-6
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 10/3/2022

SHEET NUMBER:
RP-6

Plot Date:10/19/2022 1:38 PM Plotted By: William Gilkin
Date Created:10/3/2022 \\JUB.COM\CENTRAL\CLIENTS\WAYOUNGASSET\M3MT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_RP-6.DWG





CONSTRUCTION NOTES

- (R1) CEMENT CONC. TRAFFIC CURB AND GUTTER
- (R2) 9.5' CEMENT CONC. SIDEWALK
- (R3) MATCH EXISTING PAVEMENT SAWCUT REQUIRED
- (R4) STANDARD NON-RESEDENTIAL DRIVEWAY (TYPE 1)
- (R5) 8' CEMENT CONC. SIDEWALK
- (R5) SEE PAVING DETAILS

STORMWATER NOTES

- (S1) INSTALL TYPE 1 CATCH BASIN (CB-10) INV OUT: 404.92'
- (S2) INSTALL 12" STORM SEWER PIPE, 46 LF
- (S3) INSTALL TYPE 1 CATCH BASIN (CB-11) INV IN: 404.69 INV OUT: 404.59'
- (S4) INSTALL 12" STORM SEWER PIPE, 46 LF
- (S4) INSTALL DRYWELL INV IN: 403.55'

ALIGNMENT CURVE TABLE						
CURVE #	LENGTH	RADIUS	TANGENT	DELTA	CHORD DIRECTION	CHORD LENGTH
C1	165.02'	333.00'	84.24'	28°23'37"	S75°35'54"E	163.34'
C2	100.01'	4160.28'	50.01'	1°22'38"	S62°05'25"E	100.01'

LEGEND

- PROPOSED HOT MIX ASPHALT (HMA)
- PROPOSED CONCRETE

HORZ 0 20 40
VERT 0 5 10
SCALE IN FEET

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Suite 201
Kennewick, WA 99336
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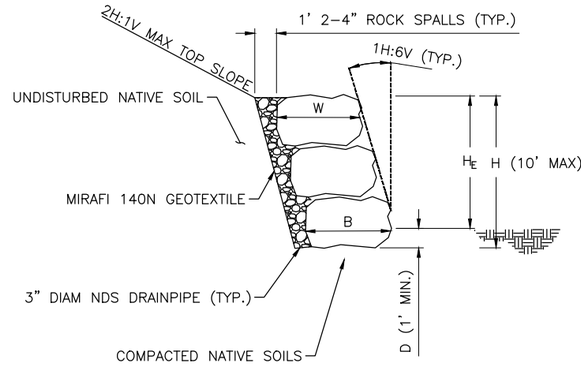
NO.	DESCRIPTION	BY	APP.	DATE
	REVISION			

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

ROADWAY PLAN AND PROFILE
STA 36+00.00 TO STA 38+50.00

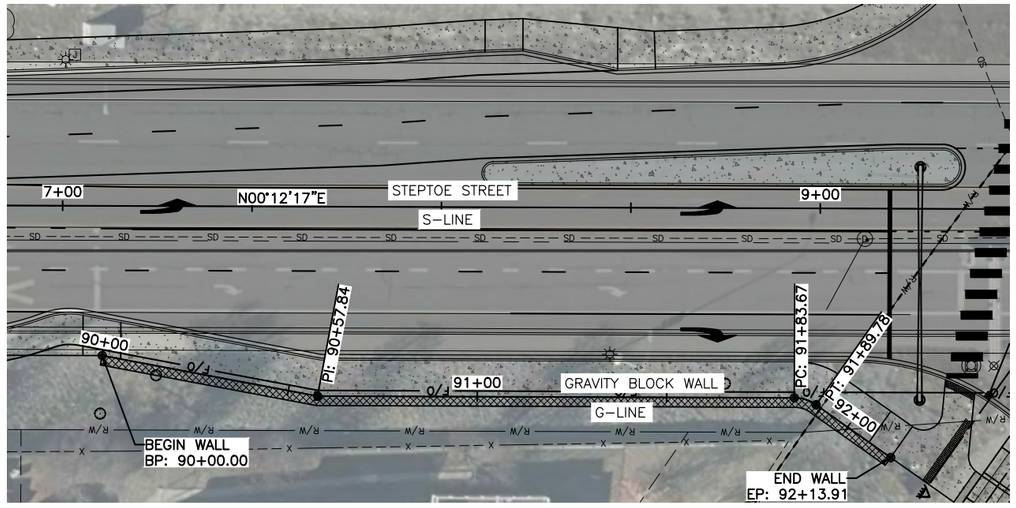
FILE : 07-21-030_RP-7
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/30/2022
SHEET NUMBER:
RP-7

Plot Date:8/30/2022 3:38 PM Plotted By: William Gillen
Date Created:7/31/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNG\ASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_RP-7.DWG

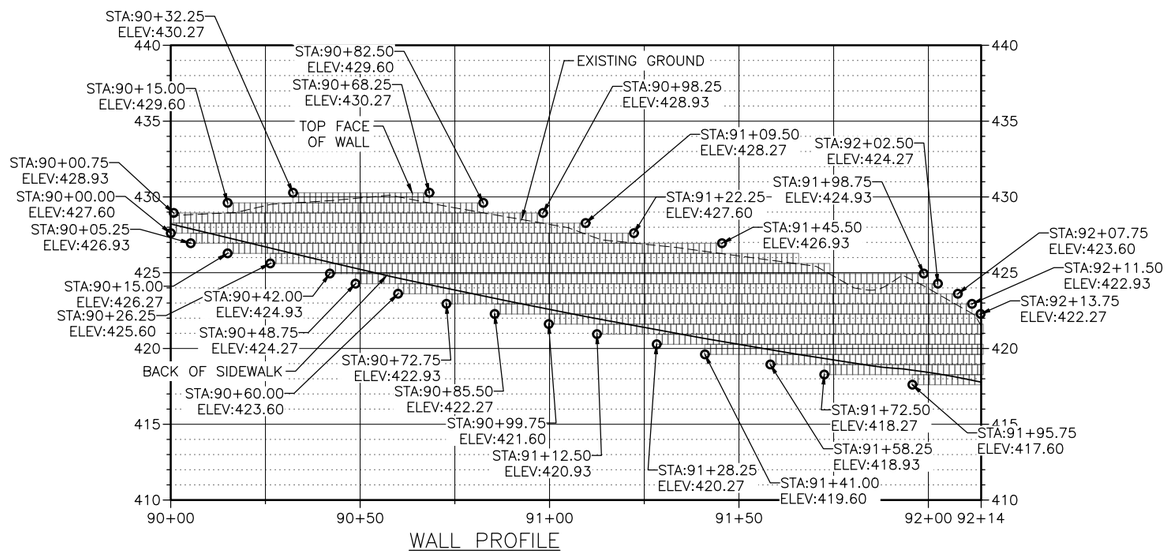


ROCKERY DESIGN DETAILS				
H_E (FT)	H (FT)	D (FT)	B (FT)	W (FT)
9.0	10.0	1.0	4.0	2.0
7.0	8.0	1.0	4.0	2.0
5.0	6.0	1.0	3.0	1.0
3.0	4.0	1.0	2.0	1.0

WALL SECTION



WALL PLAN



WALL PROFILE

NOTES:

1. ROCK WALL CONSTRUCTION IS A CRAFT AND DEPENDS LARGELY ON THE SKILL AND EXPERIENCE OF THE BUILDER. THE AMERICAN ROCKERY ASSOCIATION STNADARD ROCK WALL CONSTRUCTION GUIDELINES, 12/2/92 SHOULD BE USED TO GUIDE CONSTRUCTION OF THE WALLS.
2. THE GEOTECHNICAL ENGINEER SHOULD REVIEW THE ROCK WALL IN THE FOLLOWING SEQUENCE; (1) AFTER COMPLETION OF THE CUT AND PRIOR TO SETTING THE FIRST ROW OF ROCKS, (2) AFTER COMPLETION OF THE FIRST ROW OF ROCKS, (3) BACKFILL, (4) AFTER COMPLETION OF THE WALL.
3. IT IS THE OWNER'S RESPONSIBILITY TO INTERCEPT SURFACE DRAINAGE FROM ABOVE THE ROCK WALL AND DIRECT IT AWAY FROM THE ROCK WALL TO A POSITIVE AND PERMANENT DISCHARGE POINT WELL BELOW AND BEYOND THE TOE OF THE ROCK WALL.
4. IT IS THE OWNER'S RESPONSIBILITY TO PROVIDE FENCING OR FALL PROTECTION ABOVE THE ROCK WALL AS REQUIRED.
5. A ROCK WALL IS A PROTECTIVE SYSTEM WHICH HELPS RETARD THE WEATHERING AND EROSION PROCESS ON AN EXPOSED SOIL FACE.
6. WHILE BY ITS NATURE (MASS, SIZE, AND SHAPE OF THE ROCKS) IT WILL PROVIDE SOME DEGREEE OF RETENTION, IT IS NOT A DESIGNED OR ENGINEERED SYSTEM IN THE SENSE A REIFNORCED CONCRETE RETAINING WALL WOULD BE CONSIDERED DESIGNED OR ENGINEERED.
7. THE DEGREE OF RETENTION ACHIEVED IS DEPENDENT ON THE SIZE OF THE ROCK USED; THAT IS, THE MASS OR WEIGHT, AND THE HEIGHT OF THE WALL BEING CONSRUCTED. THE LARGER THE ROCK, THE MORE COMPETENT THE ROCK WALL SHOULD BE.
8. ROCK WALLS SHOULD BE CONSIDERED MAINTENANCE ITEMS THAT WILL REQURIE PERIODIC INSPECTION AND REPAIR. THEY SHOULD BE LOCATED SO THAT THEY CAN BE REACHED BY A CONTRACTOR IF REPAIRS BECOME NECESSARY.
9. SEE WALL SECTION FOR MAXIMUM ROCK WALL HEIGHT.
10. ROCK SHOULD BE PLACED TO GRADUALLY DECREASE IN SIZE WITH INCREASING WALL HEIGHT IN ACCORDANCE WITH GEOTECHNICAL ENGINEERS RECCOMENDATIONS.
11. MINIMUM WIDTH OF KEYWAY EXCAVATION, W, SHOULD BE EQUAL TO THE THICKNESS OF THE BASAL ROCK (AS DETERMINED BY GEOTECHNICAL ENGINEER'S DESIGN) PLUS 1 FOOT.
12. THE LONG DIMENSION OF THE ROCKS SHOULD EXTEND BACK TOWARDS THE CUT OR FILL FACE TO PROVIDE MAXIMUM STABILITY. ROCKS SHOULD NOT BE STACKED LIKE SHOE BOXES. THEY SHOULD BE PLACED TO AVOID CONTINOUS JOINT PLANES IN VERTICAL OR LATERAL DIRECTIONS. WHENEVER POSSIBLE EACH ROCK SHOULD BEAR ON TWO OR MORE ROCKS BELOW IT, WITH GOOD FLAT-TO-FLAT CONTACT.

LEGEND

PROPOSED HOT MIX ASPHALT (HMA)

PROPOSED CONCRETE

HORZ 0 20 40

VERT 0 5 10

SCALE IN FEET

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Suite 201
Kennewick, WA 99336
Phone: 509.783.2144
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NO.	DESCRIPTION	BY	APP.	DATE
	REVISION			

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

GRAVITY BLOCK WALL PLAN AND PROFILE

FILE : 07-21-030_RP-8
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 7/19/2022

SHEET NUMBER:
RP-8

Plot Date:8/30/2022 3:59 PM Plotted By: William Gillen
Date Created:7/19/2022 \\JUB.COM\CENTRAL\CLIENTS\WAYCA\INGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_RP-8.DWG

CONSTRUCTION NOTES

R1

R2

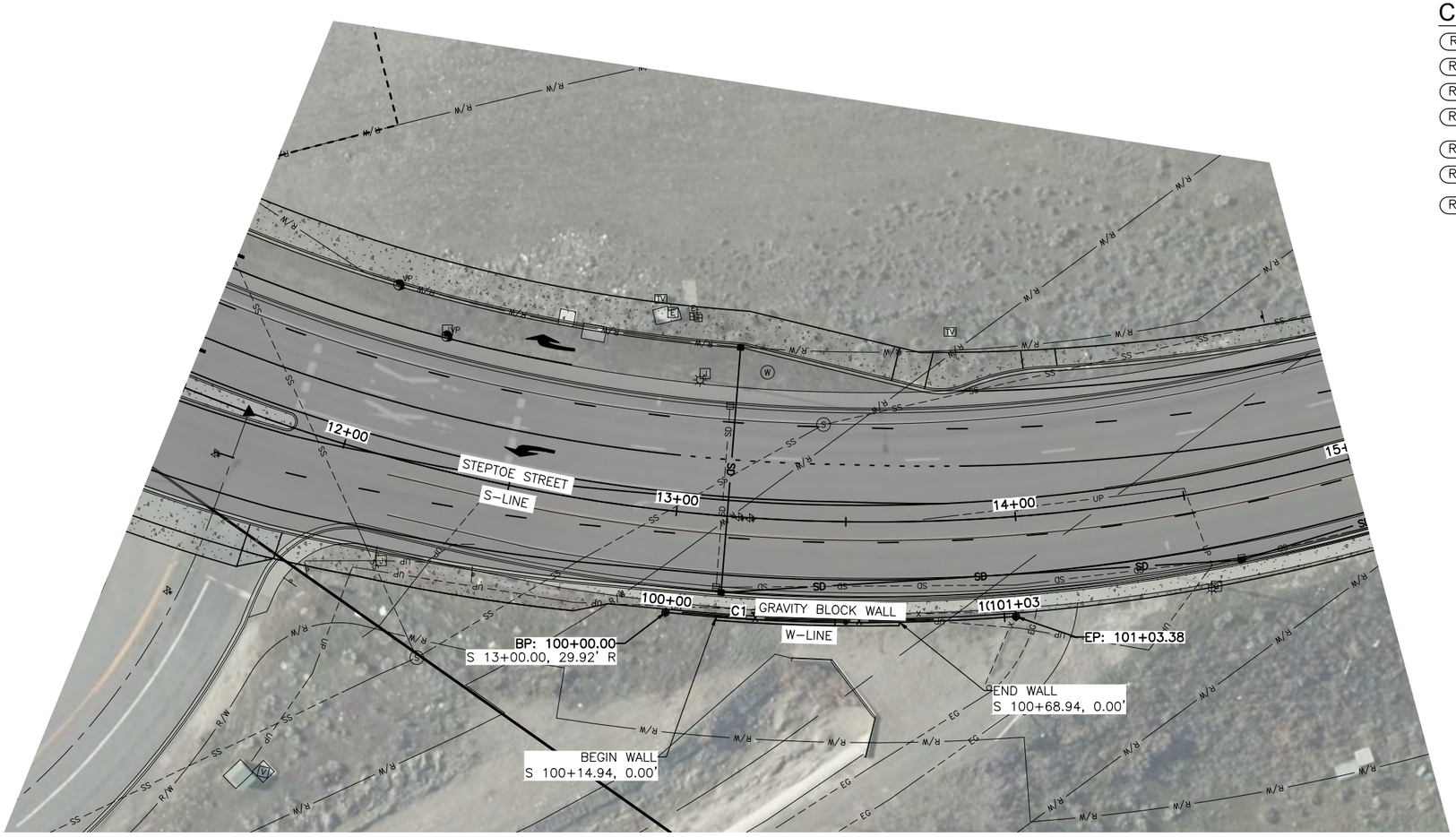
R3

R4

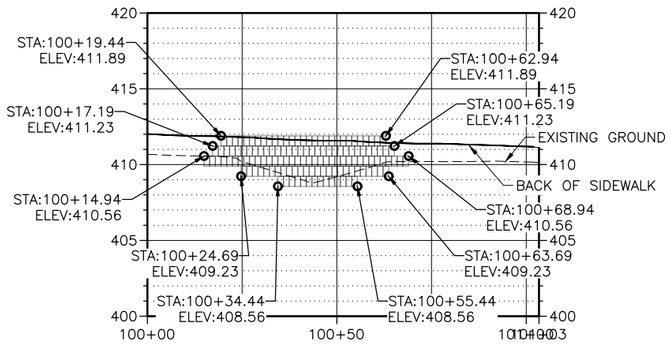
R5

R6

R7



ALIGNMENT CURVE TABLE						
CURVE #	LENGTH	RADIUS	TANGENT	DELTA	CHORD DIRECTION	CHORD LENGTH
C1	103.38'	569.60'	51.83'	10°23'56"	N34°28'52"W	103.24'



LEGEND

PROPOSED HOT MIX ASPHALT (HMA)

PROPOSED CONCRETE

HORZ 0 20 40

VERT 0 5 10

SCALE IN FEET

J-U-B ENGINEERS, INC.

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www.jub.com

NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

GRAVITY BLOCK WALL PLAN AND PROFILE

FILE: 07-21-030_RP-9
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD

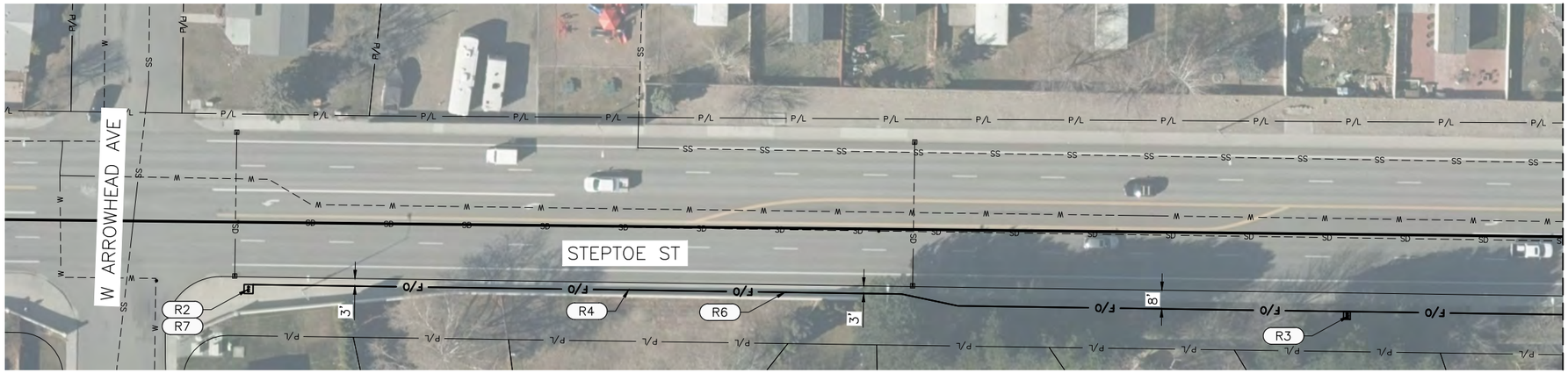
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

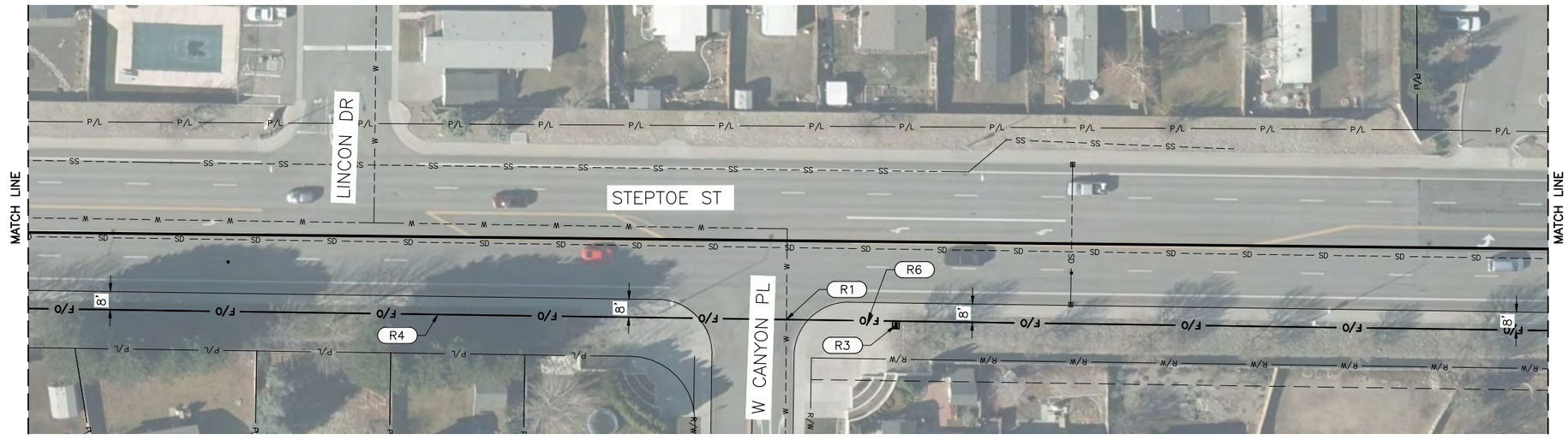
LAST UPDATED: 7/30/2022

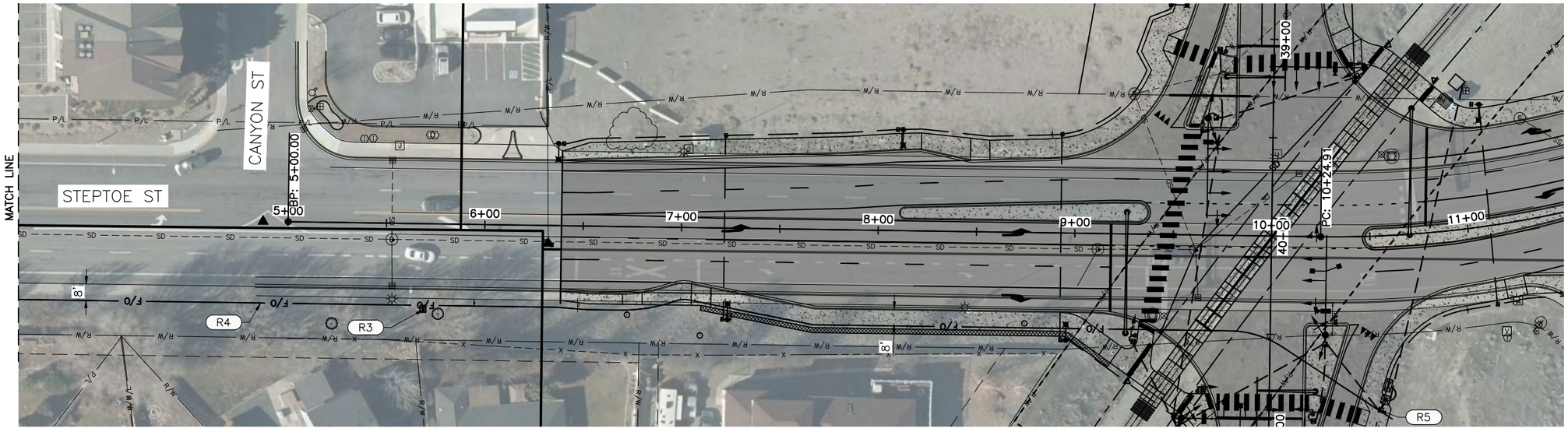
SHEET NUMBER:

RP-9

Plot Date:8/30/2022 3:39 PM Plotted By: William Gillen
Date Created7/30/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_RP-9.DWG







CONSTRUCTION NOTES

- (R1) POTHOLE AND PROTECT EXISTING WATER CROSSING
- (R2) CONSTRUCT H2 PRE-CAST P/N 444 VAULT W/ CLOSED BASE AND STEEL LID. CONTRACTOR SHALL COORDINATE EXACT LOCATION WITH CITY OF KENNEWICK.
- (R3) CONSTRUCT H2 PRE-CAST P/N 233 VAULT W/ CLOSED BASE AND STEEL LID. CONTRACTOR SHALL COORDINATE EXACT LOCATION WITH CITY OF KENNEWICK.
- (R4) INSTALL 2" CITY FIBER CONDUIT
- (R5) SEE SIGNAL PLANS
- (R7) DIRECTIONAL DRILLING REQUIRED UNDER W. CANYON PLACE AND EXISTING SIDEWALK.
- (R6) SIDEWALK RESTORATION REQUIRED

NOTES:
1. ALL DIMENSIONS ARE FROM FACE OF CURB
2. THE LOCATION OF FIBER CONDUIT IS BASED ON PRELIMINARY CITY OF KENNEWICK PLANS FOR FUTURE ARROWHEAD AVE / STEPTOE ST SIGNAL PROJECT. CONTRACTOR SHALL COORDINATE EXACT LOCATION WITH CITY OF KENNEWICK.

0 30 60
SCALE IN FEET

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NO.	DESCRIPTION	BY	APP.	DATE
	REVISION			

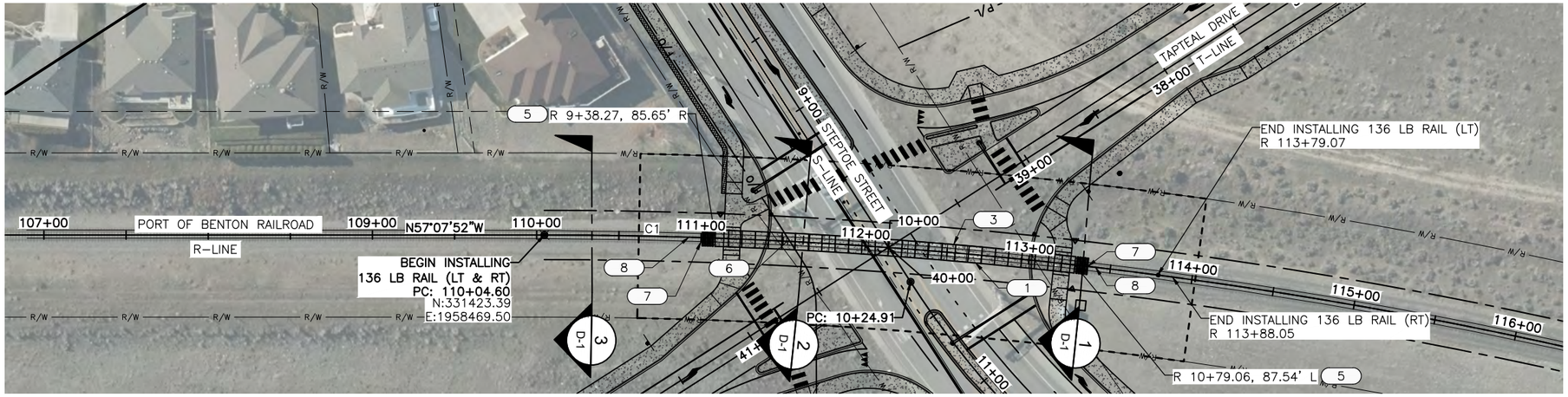
STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

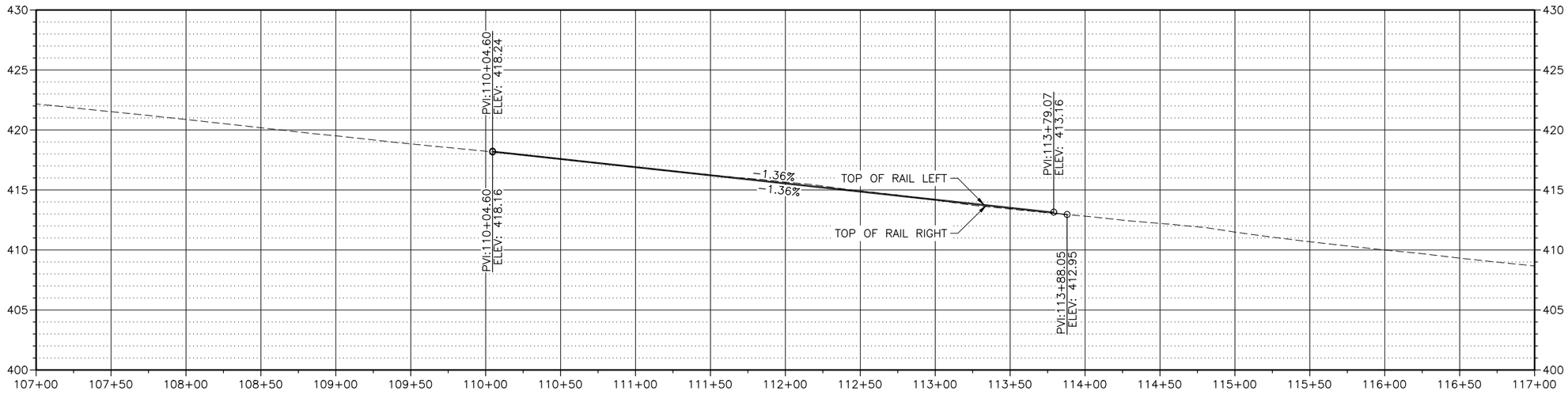
FIBER UTILITY PLAN

FILE: 07-21-030_RP-10
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE. IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/30/2022

SHEET NUMBER:
RP-10

Plot Date:8/30/2022 3:40 PM Plotted By: William Gillon
Date Created:8/23/2022 \\JUB.COM\CENTRAL\CLIENTS\WAYOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_RP-10.DWG





KEYED NOTES

1. REMOVE ALL EXISTING OMNI CONCRETE CROSSING PANELS WITH END DEFLECTORS.
2. S 9+38.27, 85.65' RT. TO S 10+81.10, 89.24' LT. RECONSTRUCT EXISTING RAILROAD TRACK. INSTALL XX NEW 10' CROSSTIES AT 18" O.C. WELD OUT EXISTING JOINTS WITHIN CROSSING AREA.
3. INSTALL 8'1.5" CONCRETE CROSSING PANELS SET PER LOCATION SHOWN. SEE UPRR STANDARD DRAWING 0322
4. NOT USED
5. INSTALL 8'1.5" CONCRETE CROSSING PANELS SET WITH END DEFLECTORS.
6. REMOVE ALL EXISTING SURFACING TO SUBGRADE FOR TRACK UNDER PANELS AND ADJACENT RECONSTRUCTED TRACK. PLACE AND COMPACT RAILROAD BALLAST, TYP. BOTH SIDES OF TRACKS IN ACCORDANCE WITH UPRR SECTION. SEE DETAIL.
7. 5 EA NEW 10' TRANSITION TIES PAST PANELS
8. RECONSTRUCT 50' TRACK BEYOND END OF PANELS

CONSTRUCTION NOTES:

1. THE EXISTING OMNI IMPROVED–CONCRETE PRECAST CONCRETE CROSSING PANELS SHALL BE REMOVED.
2. THE EXISTING CONCRETE PANELS ARE ANCHORED IN PLACE USING 3/4" TIMBER TORX HEAD SCREWS.
3. CONTRACTOR WILL COORDINATE WITH PORT OF BENTON OR THEIR DELEGATE FOR APPROVAL OF WORK (SITE SPECIFIC WORK PLAN WILL BE REQUIRED TO ALLOW PORT OF BENTON TO INSPECT CROSSING AT NUMEROUS STAGES OF CONSTRUCTION)
4. 10' TIES MUST BE PLACED 19.5" CENTER TO CENTER FOR PROPER INSTALLATION. RAILS SHALL BE WELDED, WITH ALL WELDS GROUND SMOOTH TO AVOID INTERFERING WITH THE PANELS.
5. REMOVE EXISTING RUBBER RAILGUARD ELEMENTS.
6. NEW END DEFLECTORS WILL BE REQUIRED ON BOTH ENDS. INSTALL PER MANUFACTURERS RECOMMENDATIONS.
7. SEE TYPICAL RAILROAD SECTIONS ON SHEET D–1

ALIGNMENT CURVE TABLE

CURVE #	LENGTH	RADIUS	TANGENT	DELTA	CHORD DIRECTION	CHORD LENGTH
C1	749.53'	2864.79'	376.92'	14°59'26"	N49°38'09"W	747.40'

PROPOSED CONCRETE

HORZ 0 40 80
VERT 0 5 10
SCALE IN FEET

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STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

RAILROAD PLAN

FILE : 07-21-030_RR-1
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 7/31/2022

SHEET NUMBER:
RR-1

Plot Date:8/30/2022 3:40 PM Plotted By: William Gillen
Data Created:7/31/2022 J:\JUB.COM\CENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_RR-1.DWG

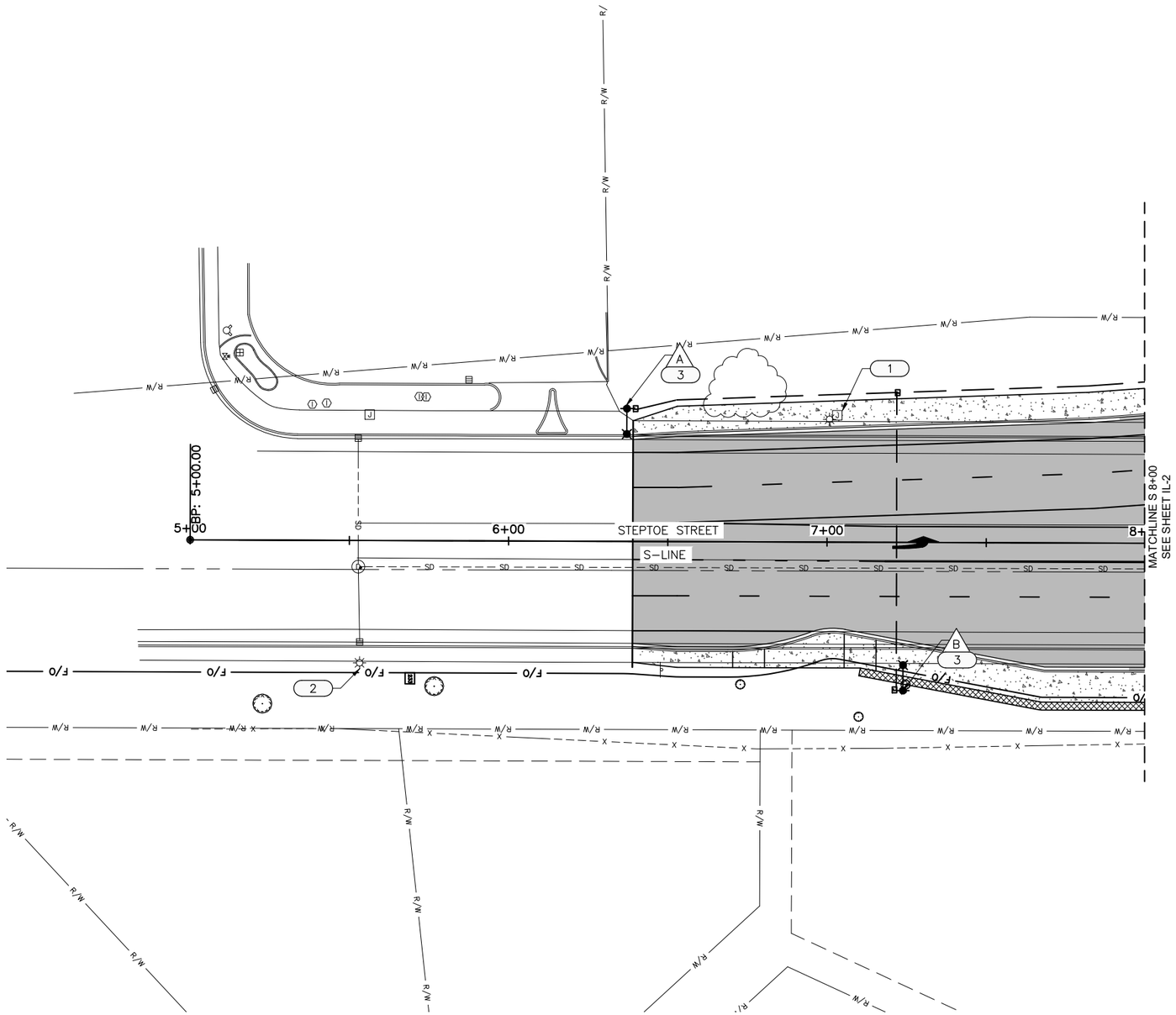
LUMINAIRE SCHEDULE								
LIGHT ID	LOCATION		POLE DATA			LIGHT DATA		
	STATION	OFFSET	POLE HEIGHT	ARM LENGTH	FOUNDATION	LUMEN OUTPUT	COLOR TEMP.	CONDUIT CROSSING
A	S 6+37.00	42.7' LT	30'	12'	CONCRETE	HIGH	4K	
B	S 7+24.00	46.6' RT	30'	12'	CONCRETE	HIGH	4K	

KEYED NOTES

1. PROTECT AND SALVAGE EXISTING LUMINAIRE AND JUNCTION BOX TO THE CITY OF RICHLAND.
2. RETAIN AND PROTECT EXISTING LUMINAIRE
3. SET MOUNTING BASE/JUNCTION BOX PER CITY OF RICHLAND STANDARD DRAWING SL-02

GENERAL NOTES:

1. USE WIDE SWEEPS FOR ALL CONDUIT CORNERS/CURVES.



HORZ 0 20 40
VERT 0 5 10
SCALE IN FEET

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NO.	DESCRIPTION	BY	APP.	DATE
	REVISION			

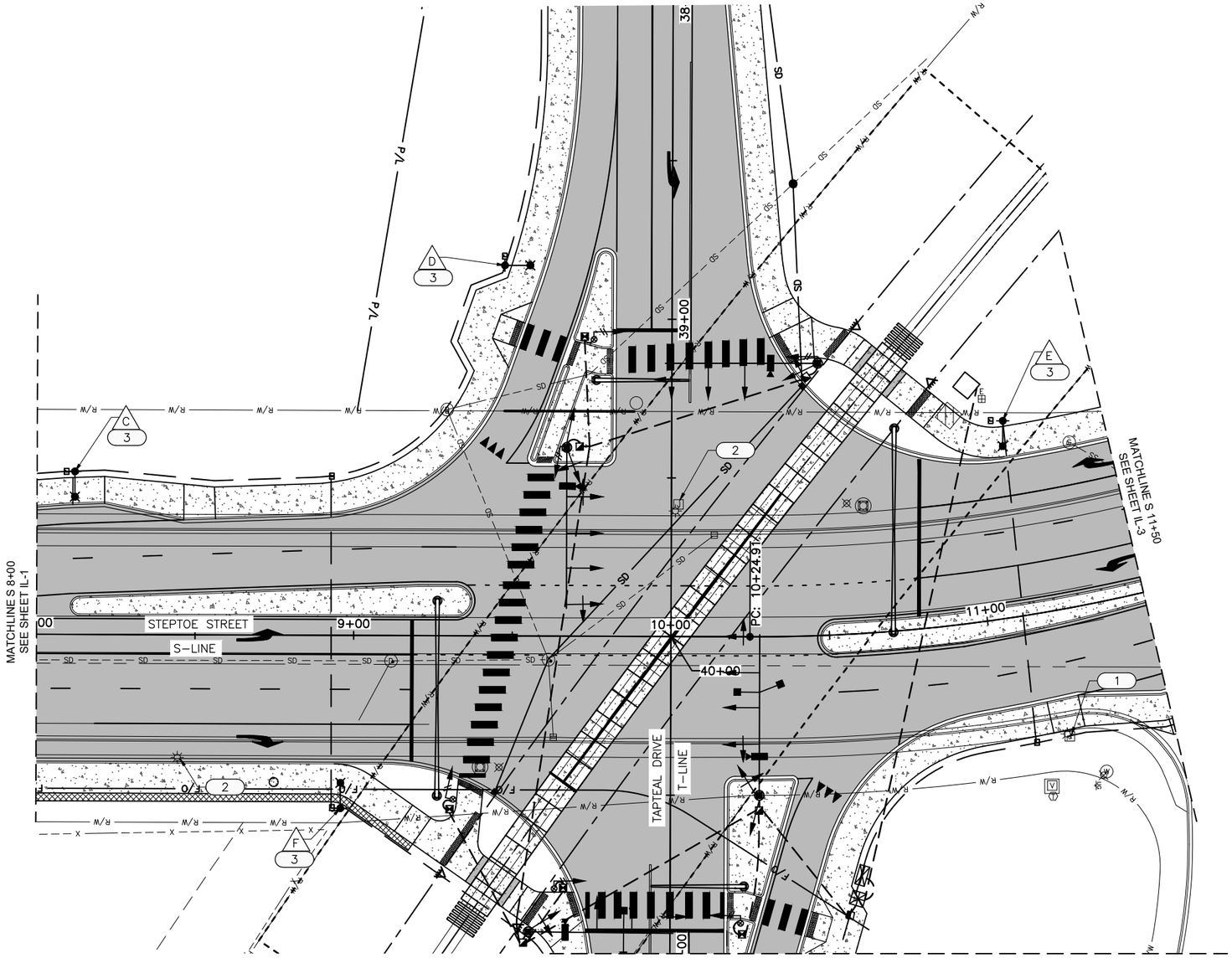
STEPTOE AND TAPTEAL INTERSECTION YOUNG ASSET MANAGMENT

ILLUMINATION
STA 5+00.00 TO STA 8+00.00

FILE : 07-21-030_IL-1
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/1/2022

SHEET NUMBER:
IL-1

Plot Date:8/30/2022 3:40 PM Plotted By: William Gillen
Date Created:7/29/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_IL-1.DWG



KEYED NOTES

1. PROTECT AND SALVAGE EXISTING LUMINAIRE AND JUNCTION BOX TO THE CITY OF RICHLAND.
2. RETAIN AND PROTECT EXISTING LUMINAIRE
3. SET MOUNTING BASE/JUNCTION BOX PER CITY OF RICHLAND STANDARD DRAWING SL-02

GENERAL NOTES:

1. USE WIDE SWEEPS FOR ALL CONDUIT CORNERS/CURVES.

LUMINAIRE SCHEDULE

LIGHT ID	LOCATION		POLE DATA			LIGHT DATA		
	STATION	OFFSET	POLE HEIGHT	ARM LENGTH	FOUNDATION	LUMEN OUTPUT	COLOR TEMP.	CONDUIT CROSSING
C	S 8+12.00	51.4' LT	30'	12'	CONCRETE	HIGH	4K	
D	T 38+83.00	51.7' RT	30'	12'	CONCRETE	HIGH	4K	
E	S 8+96.00	54.5' RT	30'	12'	CONCRETE	HIGH	4K	
F	S 11+15.00	61.7' LT	30'	12'	CONCRETE	HIGH	4K	

HORZ 0 20 40
VERT 0 5 10
SCALE IN FEET

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STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

ILLUMINATION
STA 8+00.00 TO STA 11+50.00

FILE : 07-21-030_IL-2
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/1/2022

SHEET NUMBER:
IL-2

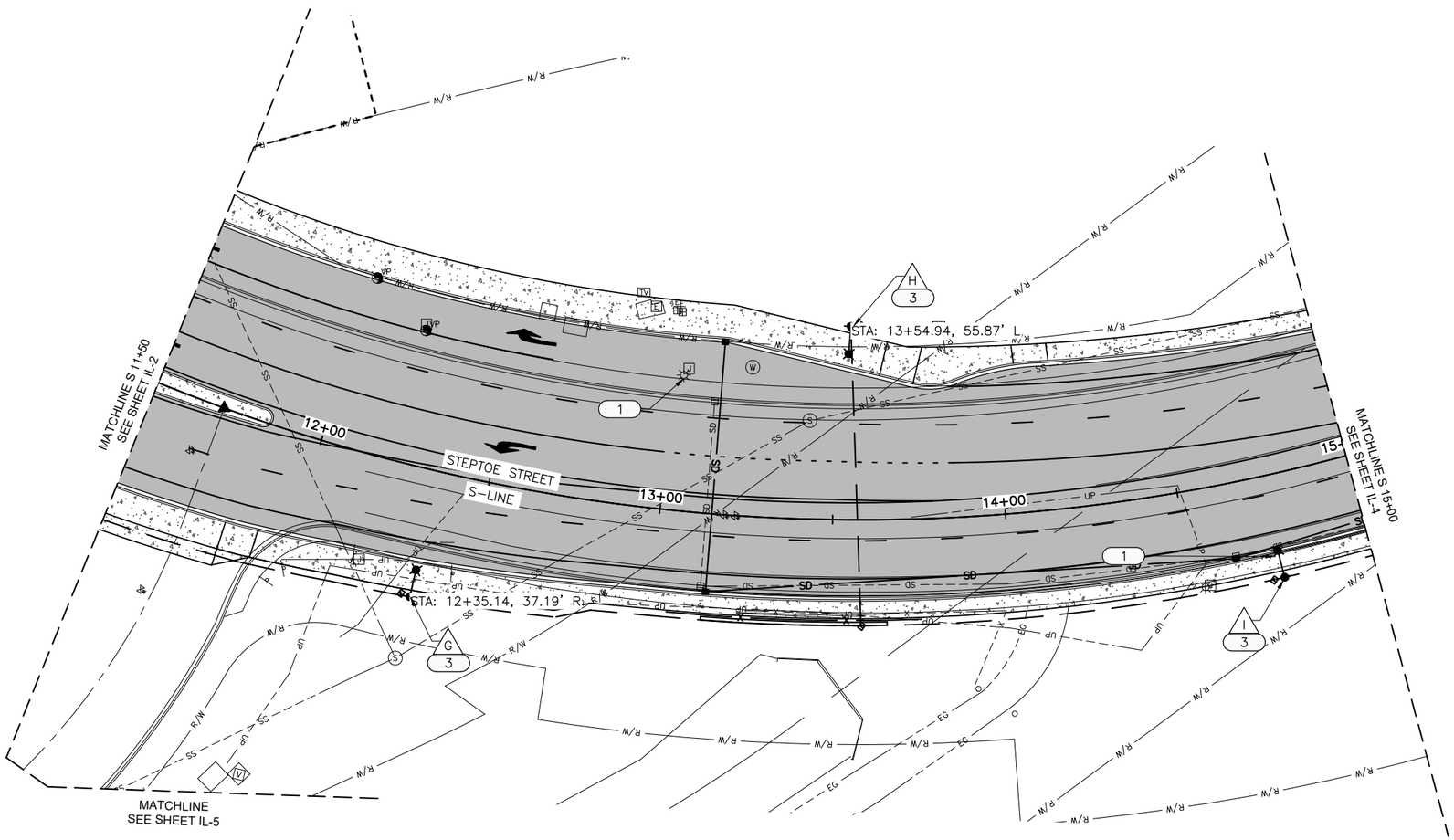
Plot Date:8/30/2022 3:41 PM Plotted By: William Gillen
Date Created:8/1/2022 \\JUB.COM\CENTRAL\CLIENTS\WAYOUNGASSETMGMT\PROJECTS\07-21-030 STEPTOETAPTEAL\DESIGN\CAD\SHEETS\07-21-030_IL-2.DWG

KEYED NOTES

1. PROTECT AND SALVAGE EXISTING LUMINAIRE AND JUNCTION BOX TO THE CITY OF RICHLAND.
2. RETAIN AND PROTECT EXISTING LUMINAIRE
3. SET MOUNTING BASE/JUNCTION BOX PER CITY OF RICHLAND STANDARD DRAWING SL-02

GENERAL NOTES:

1. USE WIDE SWEEPS FOR ALL CONDUIT CORNERS/CURVES.



LUMINAIRE SCHEDULE

LIGHT ID	LOCATION		POLE DATA			LIGHT DATA		
	STATION	OFFSET	POLE HEIGHT	ARM LENGTH	FOUNDATION	LUMEN OUTPUT	COLOR TEMP.	CONDUIT CROSSING
G	S 12+35.00	37.2' RT	30'	12'	CONCRETE	HIGH	4K	
H	S 13+55.00	55.6' LT	30'	12'	CONCRETE	HIGH	4K	
I	S 14+75.00	30.0' RT	30'	12'	CONCRETE	HIGH	4K	

HORZ 0 20 40
VERT 0 5 10
SCALE IN FEET

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STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

ILLUMINATION
STA 11+50.00 TO STA 15+00.00

FILE : 07-21-030_IL-3
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/1/2022

SHEET NUMBER:
IL-3

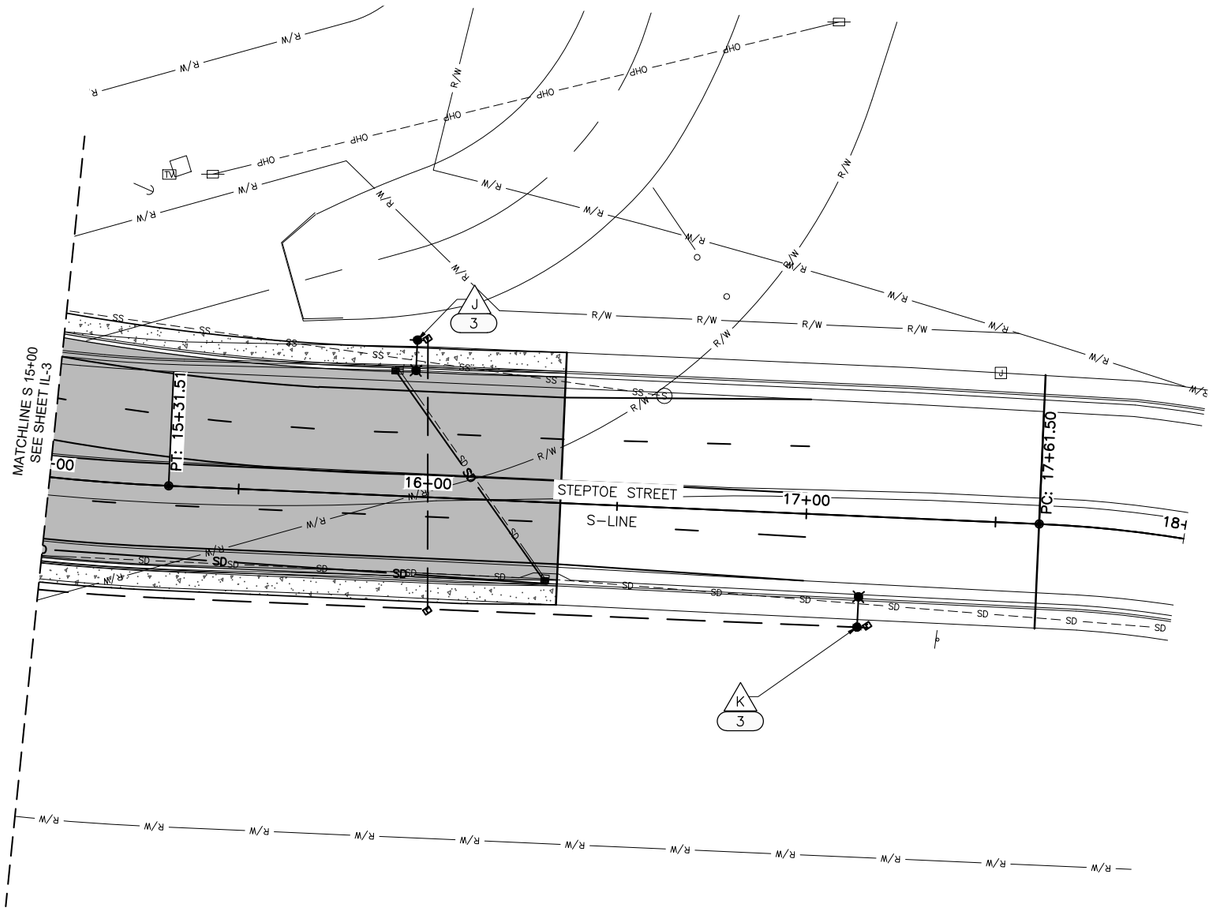
Plot Date:8/30/2022 3:41 PM Plotted By: William Gillen
Date Created:8/1/2022 \\JUB.COM\CENTRAL\CLIENTS\WAY\OUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_IL-3.DWG

KEYED NOTES

1. PROTECT AND SALVAGE EXISTING LUMINAIRE AND JUNCTION BOX TO THE CITY OF RICHLAND.
2. RETAIN AND PROTECT EXISTING LUMINAIRE
3. SET MOUNTING BASE/JUNCTION BOX PER CITY OF RICHLAND STANDARD DRAWING SL–02

GENERAL NOTES:

1. USE WIDE SWEEPS FOR ALL CONDUIT CORNERS/CURVES.



LUMINAIRE SCHEDULE

LIGHT ID	LOCATION		POLE DATA			LIGHT DATA		
	STATION	OFFSET	POLE HEIGHT	ARM LENGTH	FOUNDATION	LUMEN OUTPUT	COLOR TEMP.	CONDUIT CROSSING
J	S 15+95.00	41.3' LT	30'	12'	CONCRETE	HIGH	4K	
K	S 17+15.00	29.3' RT	30'	12'	CONCRETE	HIGH	4K	

HORZ 0 20 40
VERT 0 5 10
SCALE IN FEET

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STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

ILLUMINATION
STA 15+00.00 TO STA 18+00.00

FILE: 07-21-030_IL-4
JUB PROJ. # : 07-21-030
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DESIGN BY: WG
CHECKED BY: RD

ONE INCH
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LAST UPDATED: 8/1/2022

SHEET NUMBER:
IL-4

Plot Date:8/30/2022 3:42 PM Plotted By: William Gillen
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LUMINAIRE SCHEDULE

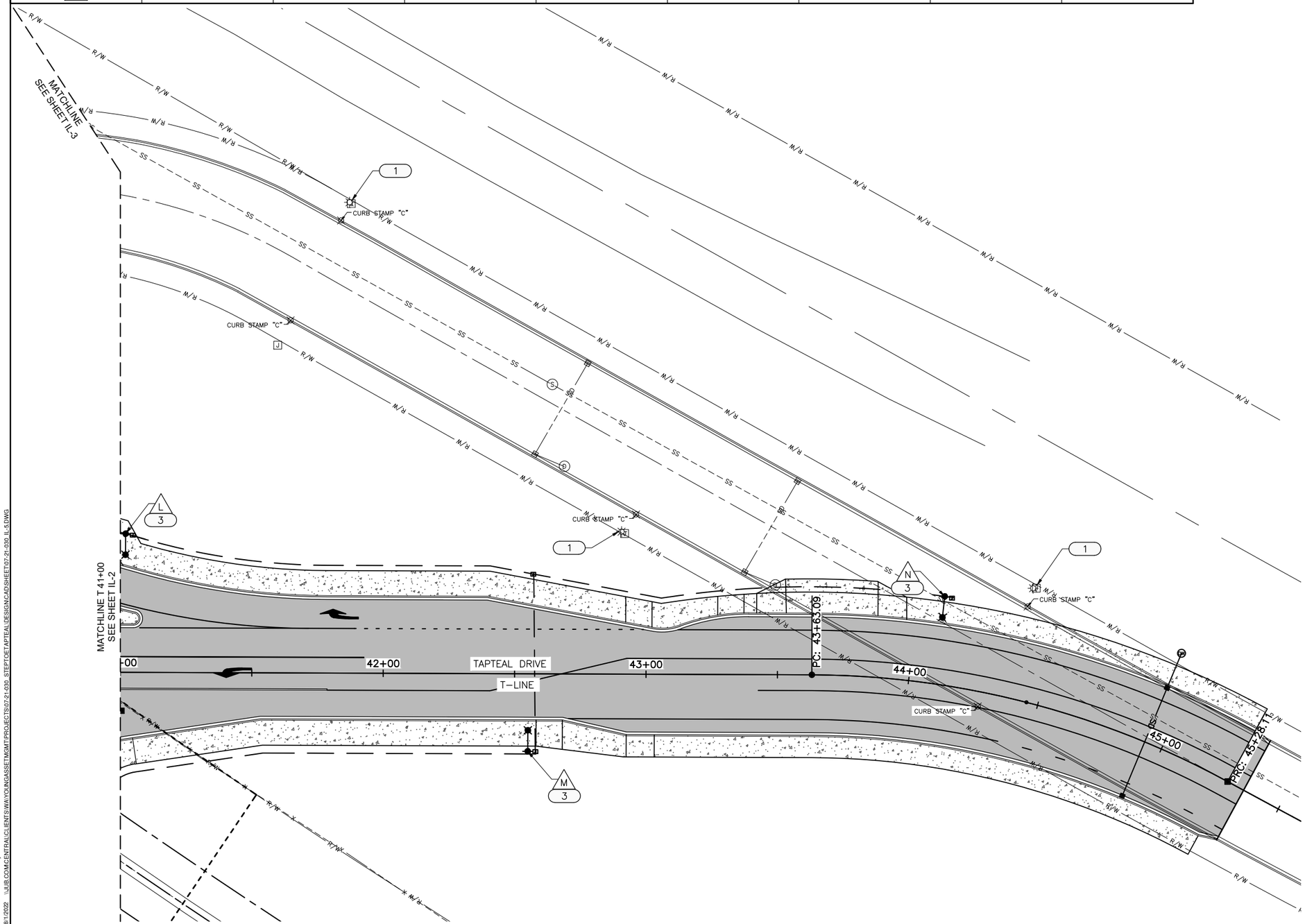
LIGHT ID	LOCATION		POLE DATA			LIGHT DATA		
	STATION	OFFSET	POLE HEIGHT	ARM LENGTH	FOUNDATION	LUMEN OUTPUT	COLOR TEMP.	CONDUIT CROSSING
L	T 41+02.00	52.8' LT	30'	12'	CONCRETE	HIGH	4K	
M	T 42+55.00	29.5' RT	30'	12'	CONCRETE	HIGH	4K	
N	T 44+09.00	33.5' LT	30'	12'	CONCRETE	HIGH	4K	

KEYED NOTES

1. PROTECT AND SALVAGE EXISTING LUMINAIRE AND JUNCTION BOX TO THE CITY OF RICHLAND.
2. RETAIN AND PROTECT EXISTING LUMINAIRE
3. SET MOUNTING BASE/JUNCTION BOX PER CITY OF RICHLAND STANDARD DRAWING SL-02

GENERAL NOTES:

1. USE WIDE SWEEPS FOR ALL CONDUIT CORNERS/CURVES.



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STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

ILLUMINATION
STA 41+00.00 TO STA 45+50.00

FILE : 07-21-030_IL-5
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
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LAST UPDATED: 8/1/2022

SHEET NUMBER:
IL-5

Plot Date:8/30/2022 3:42 PM Plotted By: William Gillen
Date Created:8/1/2022 \\JUB.COM\CENTRAL\CLIENTS\WAYOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_IL-5.DWG

GENERAL NOTES:

1. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF RICHLAND STANDARD SPECIFICATIONS, WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARDS AND SPECIFICATIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. THE LOCATIONS OF FEATURES SHOWN SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION WORK.
3. ALL WORK SHALL BE CONSISTENT WITH UTILITY AGENCY REQUIREMENTS. THE CONTRACTOR SHALL CONTACT ALL PERTINENT UTILITY AGENCIES 48 HOURS PRIOR TO COMMENCING WORK, AND SHALL COORDINATE WITH AFFECTED UTILITY AGENCIES THROUGHOUT THE PROJECT.
4. THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BY FIELD VERIFICATION BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE AFFECTED UTILITY COMPANY AND THE CITY IMMEDIATELY UPON ANY DAMAGE AND BE RESPONSIBLE FOR REPLACING ANY DAMAGED EQUIPMENT TO THE SATISFACTION OF THE AFFECTED UTILITY COMPANY AND/OR THE CITY.
5. POLE LOCATIONS SHALL BE STAKED IN THE FIELD AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ACCEPTABLE MINIMUM OVERHEAD CLEARANCE FOR ALL SIGNAL HEADS ABOVE THE STREET IS ATTAINABLE USING APPROVED SIGNAL HEAD MOUNTING PRIOR TO PLACING FOUNDATIONS.
6. VEHICLE SIGNAL HEADS SHALL HAVE 12" RED, YELLOW, AND GREEN LED LENSES AND TUNNEL VISORS PER CITY OF RICHLAND SPECIFICATIONS. VEHICLE SIGNAL HEADS SHALL BE INSTALLED ON MAST ARMS USING TYPE N MOUNTS (USING CABLE, NOT BANDING), PER WSDOT STANDARD PLAN J-75.20-01. TYPE K MOUNTS WILL BE USED FOR SIDE OF POLE MOUNTING PER WSDOT STANDARD PLAN J-75.10-02. MOUNTING HARDWARE TO BE AS CALLED OUT IN THE SPECIFICATIONS. VEHICLE SIGNAL HEADS SHALL HAVE LOUVERED BACKPLATES WITH 2" YELLOW REFLECTIVE BORDERS.
7. INSTALL MAST ARM AND POLE MOUNTED SIGNS PER WSDOT STANDARD PLAN G-30.10-04, WITH THE EXCEPTION OF ILLUMINATED SIGNS.
8. COUNTDOWN PEDESTRIAN SIGNAL HEADS SHALL BE INSTALLED ON POLES USING TYPE E MOUNTS, PER WSDOT STANDARD PLAN J-75.10-02. THE COUNTDOWN HEADS SHALL BE INSTALLED PARALLEL WITH THE ASSOCIATED CROSSWALK.
9. APS STYLE PEDESTRIAN PUSHBUTTON ASSEMBLIES SHALL BE INSTALLED FACING THE INTERSECTION AND PARALLEL WITH THE ASSOCIATED CROSSWALK, MOUNTED AT 42" ABOVE THE SIDEWALK GRADE.
10. THE JUNCTION BOX AND CONDUIT LOCATIONS ARE SHOWN APPROXIMATE. JUNCTION BOXES SHALL BE PLACED OUTSIDE OF SIDEWALKS UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER. JUNCTION BOXES LOCATED IN SIDEWALK SHALL HAVE NON-SKID LIDS. ALL JUNCTION BOXES, NEW AND EXISTING SHALL HAVE PROPER GROUNDING ROD AND CONNECTIONS PER NEC.

LEGEND

DESCRIPTION	PROPOSED SYMBOL
RIGHT OF WAY	R/W ——— R/W
CONSTRUCTION NOTE	(#)
SIGNAL POLE CONSTRUCTION NOTE	[#]
WIRE NOTE	<#>
SIGN NOTE	(#)
SIGN REMOVAL NOTE	(R#)
VEHICLE SIGNAL HEAD	◄
VEHICLE SIGNAL TURN HEAD	◄↑
PEDESTRIAN SIGNAL HEAD	◄🚶
PEDESTRIAN PUSHBUTTON	⊦
QUAZITE JUNCTION BOX (TYPE 1, 2, & 3)	▣
EMERGENCY VEHICLE PREEMPTION DEVICE	■—
MAST ARM MOUNTED STREET/REGULATORY SIGN & POLE MOUNTED REGULATORY SIGN	⊢
CONDUIT	— — — — — — — —
TRAFFIC SIGNAL CONTROLLER CABINET	▣
SIGNAL POLE AND MAST ARM	⊗—
TYPE I SIGNAL POLE	⊗
PEDESTRIAN PUSHBUTTON POST	▫
VIDEO DETECTION CAMERA	▬◄
LUMINAIRE	●
ELECTRICAL SERVICE CABINET	▣

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STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

TRAFFIC SIGNAL NOTES AND LEGEND

FILE : 07-21-030_TS-1
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 7/27/2022

SHEET NUMBER:
TS-1

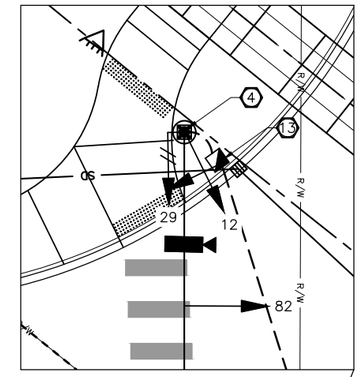
Plot Date:8/30/2022 3:42 PM Plotted By: William Gillen
Date Created:3/23/2022 \\JUB.COM\C-CENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_TS-1.DWG

KEYED NOTES

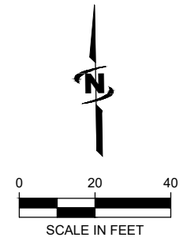
1. CONSTRUCT FOUNDATION PER WSDOT STANDARD PLAN J-26.10-03, AND PROVIDE AND INSTALL TYPE III SIGNAL POLE WITH 50FT MAST ARM AND INTEGRAL TERMINAL COMPARTMENT PER DETAIL 1/TS-6. PROVIDE AND INSTALL FOUR VEHICLE SIGNAL HEADS, AND INSTALL ONE INTERNALLY ILLUMINATED STREET NAME SIGN ON MAST ARM. PROVIDE AND INSTALL TWO VEHICLE SIGNAL HEADS ON SIGNAL POLE. PROVIDE AND INSTALL ONE HIGH LUMEN OUTPUT 4000K LUMINAIRE ON 16FT ARM AT 30FT MOUNTING HEIGHT. PROVIDE AND INSTALL ONE VIDEO DETECTION CAMERA ON LUMINAIRE ARM PER CITY OF RICHLAND SPECIFICATIONS. THE TOP OF THE FOUNDATION SHALL BE FLUSH WITH THE TOP OF THE SIDEWALK.
2. CONSTRUCT FOUNDATION PER WSDOT STANDARD PLAN J-26.10-03, AND PROVIDE AND INSTALL TYPE III SIGNAL POLE WITH 45FT MAST ARM AND INTEGRAL TERMINAL COMPARTMENT PER DETAIL 1/TS-6. PROVIDE AND INSTALL THREE VEHICLE SIGNAL HEADS AND ONE GTT MODEL 722 OPTICOM PREEMPTION DETECTOR ON MAST ARM. PROVIDE AND INSTALL ONE VEHICLE SIGNAL HEAD ON SIGNAL POLE. INSTALL ONE INTERNALLY ILLUMINATED STREET NAME SIGN. PROVIDE AND INSTALL ONE COUNTDOWN PEDESTRIAN SIGNAL HEAD ON SIGNAL POLE. PROVIDE AND INSTALL ONE HIGH LUMEN OUTPUT 4000K LUMINAIRE ON 16FT ARM AT 30FT MOUNTING HEIGHT. PROVIDE AND INSTALL ONE VIDEO DETECTION CAMERA ON LUMINAIRE ARM PER CITY OF RICHLAND SPECIFICATIONS. THE TOP OF THE FOUNDATION SHALL BE FLUSH WITH THE TOP OF THE SIDEWALK.
3. CONSTRUCT FOUNDATION PER WSDOT STANDARD PLAN J-26.10-03, AND PROVIDE AND INSTALL TYPE III SIGNAL POLE WITH 50FT MAST ARM AND INTEGRAL TERMINAL CABINET PER DETAIL 1/TS-6. PROVIDE AND INSTALL FOUR VEHICLE SIGNAL HEADS AND ONE GTT MODEL 722 OPTICOM PREEMPTION DETECTOR ON MAST ARM. INSTALL ONE INTERNALLY ILLUMINATED STREET NAME SIGN. PROVIDE AND INSTALL TWO VEHICLE SIGNAL HEADS AND ONE COUNTDOWN PEDESTRIAN SIGNAL HEAD ON SIGNAL POLE. INSTALL ONE HIGH LUMEN OUTPUT 4000K LUMINAIRE ON 16FT ARM AT 30FT MOUNTING HEIGHT. PROVIDE AND INSTALL ONE VIDEO DETECTION CAMERA ON LUMINAIRE ARM PER CITY OF RICHLAND SPECIFICATIONS. THE TOP OF THE FOUNDATION SHALL BE FLUSH WITH THE TOP OF THE SIDEWALK.
4. CONSTRUCT FOUNDATION PER WSDOT STANDARD PLAN J-26.10-03, AND PROVIDE AND INSTALL TYPE III SIGNAL POLE WITH 50FT MAST ARM AND INTEGRAL TERMINAL COMPARTMENT PER DETAIL 1/TS-6. PROVIDE AND INSTALL THREE VEHICLE SIGNAL HEADS, AND INSTALL ONE INTERNALLY ILLUMINATED STREET NAME SIGN ON MAST ARM. PROVIDE AND INSTALL ONE VEHICLE SIGNAL HEAD AND ONE COUNTDOWN PEDESTRIAN SIGNAL HEAD ON SIGNAL POLE. PROVIDE AND INSTALL ONE HIGH LUMEN OUTPUT 4000K LUMINAIRE ON 16FT ARM AT 30FT MOUNTING HEIGHT. PROVIDE AND INSTALL ONE VIDEO DETECTION CAMERA ON LUMINAIRE ARM PER CITY OF RICHLAND SPECIFICATIONS. THE TOP OF THE FOUNDATION SHALL BE FLUSH WITH THE TOP OF THE SIDEWALK.

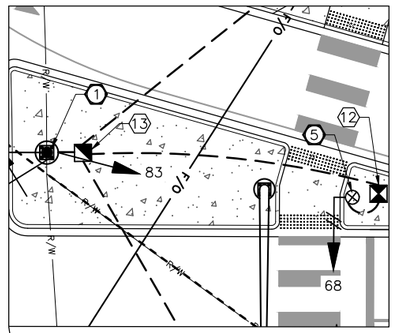
5 6 7 8. CONSTRUCT FOUNDATION PER WSDOT STANDARD PLAN J-20.10-04 AND PROVIDE AND INSTALL TYPE 1 SIGNAL POLE PER WSDOT STANDARD PLAN J-20.16-02. PROVIDE AND INSTALL ONE COUNTDOWN STYLE PEDESTRIAN SIGNAL HEAD AND ONE ACCESSIBLE PEDESTRIAN SIGNAL (APS) STYLE PEDESTRIAN PUSHBUTTON ASSEMBLY ON POST. TOP OF FOUNDATION SHALL BE FLUSH WITH THE TOP OF SIDEWALK. PUSHBUTTON SHALL BE PLACED WITHIN 10-FT OF THE FACE OF CURB.

9. PROVIDE AND INSTALL TRAFFIC SIGNAL CONTROLLER CABINET ON NEW FOUNDATION PER DETAIL 2/TSP-6, CABINET FOUNDATION AND PER SPECIAL PROVISIONS. CONTRACTOR TO PROVIDE AND INSTALL NEW COBALT CONTROLLER UNIT, NEW OPTICOM 764 PHASE SELECTOR, NEW MMU, AND VIDEO DETECTION COMMUNICATION PANEL PER THE SPECIFICATIONS.
10. PROVIDE AND INSTALL SERVICE CABINET PER DETAIL 3/TSP-6 AND PER SPECIAL PROVISIONS.
11. FINAL SERVICE CONNECTION TO BE MADE BY POWER COMPANY.
12. PROVIDE AND INSTALL NEW QUAZITE TYPE 1 JUNCTION BOX.
13. PROVIDE AND INSTALL NEW QUAZITE TYPE 2 JUNCTION BOX.
14. PROVIDE AND INSTALL NEW QUAZITE TYPE 3 JUNCTION BOX.
15. PROVIDE AND INSTALL INTERNALLY ILLUMINATED SIGN.
16. RAILROAD SIGNAL HOUSE BY OTHERS

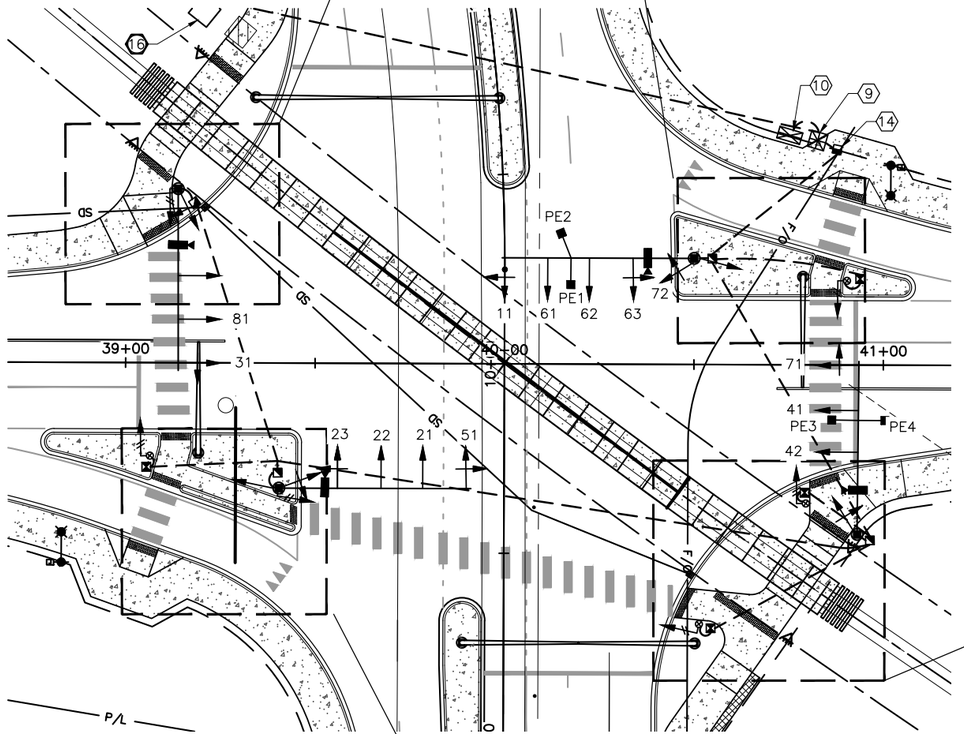


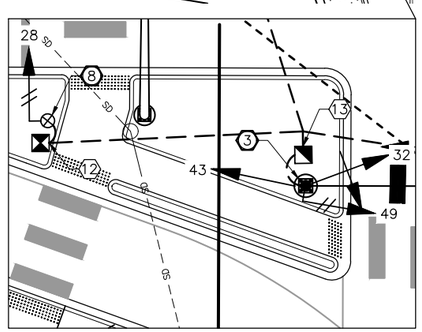
NORTH WEST CORNER DETAIL
SCALE: 1"=10'





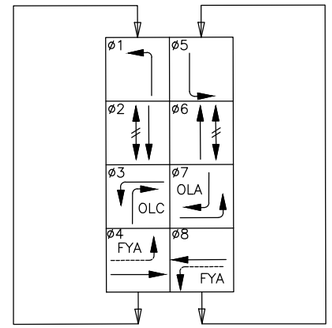
NORTH EAST CORNER DETAIL
SCALE: 1"=10'



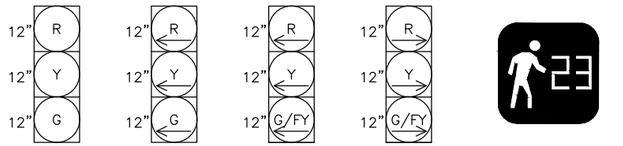


SOUTH WEST CORNER DETAIL
SCALE: 1"=10'

PROPOSED SIGNAL PHASING



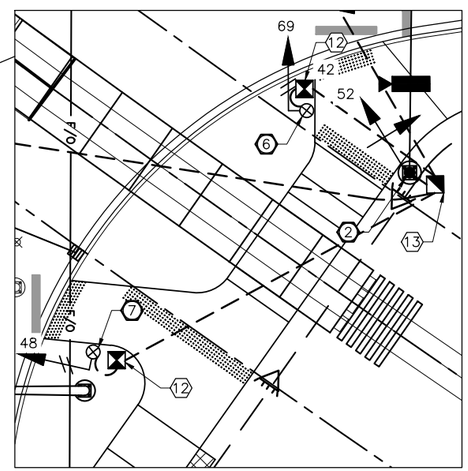
SIGNAL HEAD ASSIGNMENT



PRE-EMPTION SCHEDULE	
CIRCUIT	PHASE(S)
PE1	1&6
PE2	2&5
PE3	3&8
PE4	4&7

NOTES:

1. SEE SHEET TS-1 FOR GENERAL NOTES AND LEGEND.
2. SEE SHEET TS-3 FOR WIRING SCHEDULE, SIGN LEGEND, BREAKER SCHEDULE, AND DETAILS.
3. SEE SHEET TS-4 FOR WIRING DIAGRAM.
4. SEE SHEET TS-5 FOR TRAFFIC SIGNAL POLE CHART.



SOUTH EAST CORNER DETAIL
SCALE: 1"=10'

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Suite 201
Kennewick, WA 99336
Phone: 509.783.2144
www.jub.com

NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

TRAFFIC SIGNAL PLAN

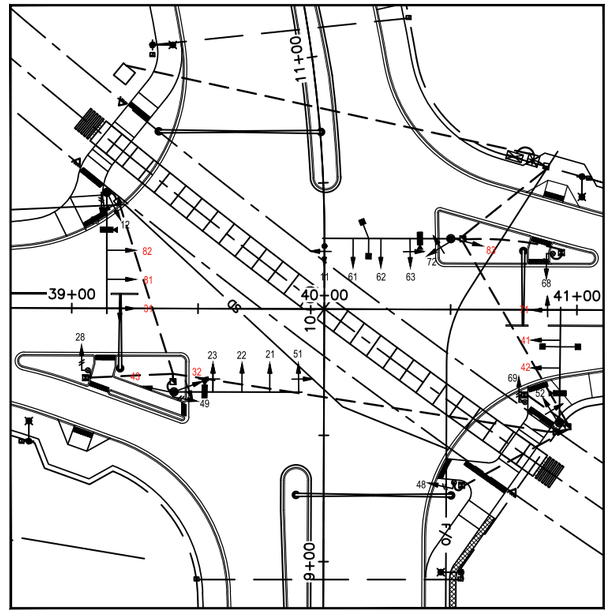
FILE : 07-21-030_TS-2
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/26/2022

SHEET NUMBER:
TS-2

Plot Date:8/30/2022 3:43 PM Plotted By: William Gillen
Data Created:8/25/2022 \\JUB.COM\CENTRAL\CLIENTS\WAYOUNG\ASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_TS-2.DWG

LEGEND

HHTB	—	HAND HOLE TERMINAL BLOCK IN BASE OF SIGNAL POLE.
●	—	SPLICE IN JUNCTION BOX, OR FUSE IN LIGHT STANDARD.
◗	—	TERMINAL REQUIRED. CONNECT IDENTIFIED WIRES TO IDENTIFIED TERMINAL.
○	—	SPLICE IN LIGHT STANDARD.
⊠	—	NO TERMINAL REQUIRED. CONNECT IDENTIFIED WIRES TO NEUTRAL (AC-)BUSS
⊞	—	NO TERMINAL REQUIRED. CONNECT IDENTIFIED WIRES TO DETECTOR COMMON BUSS.
⊟	—	NO TERMINAL REQUIRED. NO CONNECTION REQUIRED.
⏚	—	GROUND ROD W/ CLAMP



WIRING SCHEDULE

RUN #	CONDUIT SIZE	WIRE VEH/PED 5C	WIRE VEH/PED 7C	PED BUTTONS 2C (AGPS)	EV DETECT 3C (SH)	VIDEO CABLE	#8	ILLUMINATION #10	SIG POWER #6	SCHOOL BEACON #10
1	2	--	--	--	--	--	1	--	2	--
2	4	11	9	--	--	--	1	--	--	4
	3	--	--	--	2	4	1	--	--	--
3	3 EX	3	2	--	--	1	1	2	--	--
	2 EX (SP)	--	--	--	--	--	--	--	--	--
4	3 EX	5	5	--	--	--	1	4	--	2
	2 EX (SP)	--	--	--	2	2	1	--	--	--
5	3 EX	2	3	--	1	1	1	2	--	2
6	2	--	--	--	--	--	1	8	2	--
7	3	4	3	--	--	1	1	2	--	--
8	2 EX	2	1	--	--	--	1	--	--	--
9	3	5	3	--	--	1	1	2	--	--
10	2 EX	1	--	2	--	--	1	--	--	--
11	2	1	1	2	--	--	1	--	--	--
12	2 EX (?)	--	--	--	--	--	1	--	2	2
13	2 EX (?)	6	3	--	1	1	1	2	--	--
14	3	6	3	--	1	1	1	2	--	--
15	2 EX	2	1	2	--	--	1	--	--	--
16	1.5 EX (?)	1	--	1	--	--	1	--	--	--
17	3	4	4	1	1	1	1	2	--	--
18	2 EX	2	1	1	--	--	1	--	--	--
19	2	--	--	--	--	--	--	--	--	--
20	2 EX (?)	--	--	--	--	--	1	--	--	2

EX - EXISTING CONDUIT
CS - CONDUCTOR SHIELDED
C - CONDUCTOR

CONTROLLER CABINET

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NO.	DESCRIPTION	REVISION BY	APP'L	DATE

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

TRAFFIC SIGNAL WIRING DIAGRAM

FILE : 07-21-030_TS-4
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/26/2022
SHEET NUMBER:
TS-3

Plot Date:8/30/2022 3:43 PM Plotted By: William Gillen
Date Created:9/26/2022 \\JUB.COM\CENTRALCLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_TS-4.DWG

LEGEND

a.	VEHICLE DISPLAY	f.	LUMINAIRE
b.	MAST ARM MTD. SIGN	g.	PEDESTRIAN DISPLAY
c.	STREET NAME SIGN	h.	TERMINAL CABINET
d.	PRE-EMPT DETECTOR	i.	APS PPB-M
e.	POST MTD. SIGN	j.	HANDHOLE

SIGNAL STANDARD IDENTIFICATION TAG DETAIL

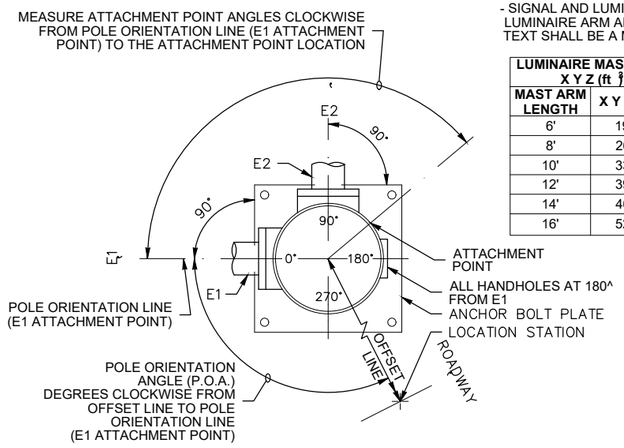
STD. NO. XX—
SRXXX, MP XXX.XX -
MANUFACTURER
APPROVED DWG. XXXXXX
FAB. X/XX/XXXX—

—SIGNAL STANDARD NO.
- STATE ROUTE AND - MILE POST NO.
APPROVED DRAWING NO.
—FABRICATION DATE—

—STD. NO. 02
– SR97, MP 069.09
MANUFACTURER
APPROVED DWG. AB12345
— FAB. 6/14/2002

EXAMPLE

TAG NOTES:
CORROSION RESISTANT METAL TAG SECURED WITH (2) 0.125" RIVETS AS FOLLOWS:
- POLE SHAFT - LOCATED WITHIN 6" ABOVE HAND HOLE (TYPE II & III).
- SIGNAL AND LUMINAIRE MAST ARM (TYPE II & III) - LOCATED WITHIN 6" OF THE LUMINAIRE ARM AND THE POLE SHAFT CONNECTION POINT (TYPE III).
TEXT SHALL BE A MINIMUM OF 3/16" HIGH, STAMPED OR EMBOSSED.

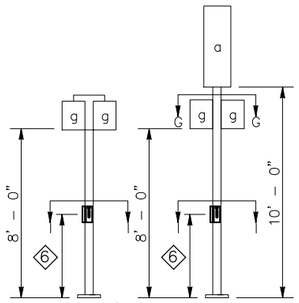


POLE ORIENTATION AND ATTACHMENT POINT DETAIL

NOTE:
TYPE E MOUNTS SHALL BE USED FOR PEDESTRIAN DISPLAYS ON TYPE II OR III SIGNAL STANDARDS, WITH THE FOLLOWING EXCEPTION: PEDESTRIAN DISPLAYS MOUNTED ON OCTAGONAL (8 SIDED) SIGNAL STANDARDS AT AN ANGLE OTHER THAN A 45 DEGREE INCREMENT SHALL USE A TYPE A MOUNT FOR TWO PEDESTRIAN DISPLAYS, OR A TYPE B MOUNT FOR A SINGLE PEDESTRIAN DISPLAY.

LUMINAIRE MAST ARM X Y Z (ft³)	
MAST ARM LENGTH	X Y Z (ft³)
6'	19.8
8'	26.4
10'	33.0
12'	39.6
14'	46.2
16'	52.8

STANDARD TYPE		STANDARD PLAN REFERENCES			
		POLE	FOUNDATION		ELECTRICAL
			STANDARD	CURB	
PPB	FIXED	J-20.10	J-20.10	J-20.11	J-20.10
PPB	BREAKAWAY	J-20.15	J-20.15	J-20.11	J-20.15
PS		J-20.16	J-21.10	J-20.11	J-20.20
I		J-21.15	J-21.10	J-20.11	J-21.20
II, III, SD		N/A	J-26.10, J-26.15	N/A	N/A



⑥ 3' - 6" MEASURED FROM SIDEWALK SURFACE TO CENTER OF PEDESTRIAN PUSH BUTTON

TYPE PPB PPB POST | **TYPE PS PED. HEAD STANDARD** | **TYPE I VEHICLE HEAD STANDARD**

NOTES

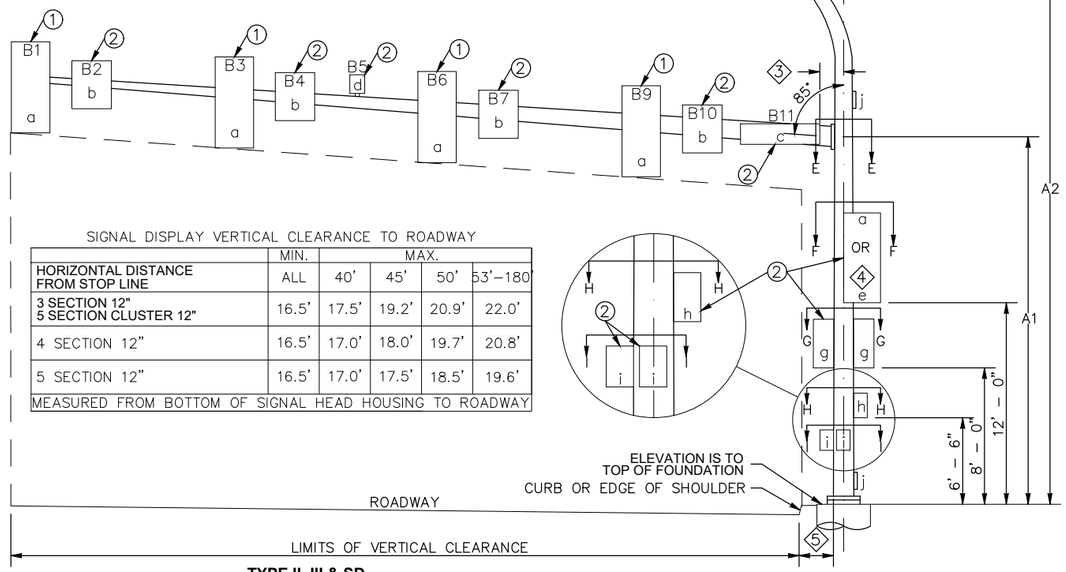
① MOUNTING COUPLING INSTALLED AT OFFSET DISTANCE INDICATED IN CHART. FOR TYPE N MOUNTS ONLY, DRILL 1" DIA. HOLE IN MAST ARM AND INSTALL PLASTIC SPLIT BUSHING FOR CABLE ENTRANCE.

② FIELD INSTALLED. SIGN SIZES SHALL NOT EXCEED THE MAXIMUM VALUES LISTED HERE:

SIGN	HEIGHT	WIDTH	AREA
b	3.0 FT	N/A	7.5 SQ. FT.
c	3.0 FT	N/A	36.0 SQ. FT.
e	N/A	3.0 FT	15.0 SQ. FT.

SIGNAL DISPLAY VERTICAL CLEARANCE TO ROADWAY

	MIN.	MAX.			
HORIZONTAL DISTANCE FROM STOP LINE	ALL	40'	45'	50'	53'–180
3 SECTION 12" 5 SECTION CLUSTER 12"	16.5'	17.5'	19.2'	20.9'	22.0'
4 SECTION 12"	16.5'	17.0'	18.0'	19.7'	20.8'
5 SECTION 12"	16.5'	17.0'	17.5'	18.5'	19.6'
MEASURED FROM BOTTOM OF SIGNAL HEAD HOUSING TO ROADWAY					



⑦ DMS OR VMS IS NOT ALLOWED ON THESE POLES.

TYPE II, III & SD SIGNAL STANDARD

③ 1' - 0" MIN. TO 2' - 6" MAX. FROM POLE CENTERLINE TO SIGN EDGE

④ FOR POST MOUNTED SIGNS THERE SHALL BE 2' - 0" MIN. FROM THE FACE OF THE CURB OR THE EDGE OF THE SHOULDER TO THE EDGE OF THE SIGN

⑤ PLACEMENT SHALL BE 2' - 0" MIN. FROM FACE OF CURB OR EDGE OF SHOULDER; 3' - 0" MIN. FROM FACE OF GUARDRAIL; 4' - 0" MIN. FROM CONC. BARRIER TYPE 2 (MEASURED FROM A POINT WHERE THE BARRIER BASE MEETS THE SHOULDER SURFACE (TOE). MEASUREMENT TAKEN FROM TRAFFIC SIDE OF BARRIER; TO FACE OF POLE)

SIGNAL STANDARD DETAIL CHART

STD. No.	Centerline Stationing	FIELD LOCATION: STATION	OFFSET	LT.	RT.	ELEV.*	P.O.A	POLE TYPE	MOUNTING HEIGHT (FT): A1	A2	SIGNAL MAST ARM DATA — OFFSETS (FT) (Z) (POLE TO ATTACHMENT POINT): B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	WINDLOAD AREAS (FT²)(X)(Y): B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	LUMINAIRE ARM (FT): C	VIDEO PLACE-MENT: C2	TOTAL MAST ARM (FT)	CALCULATED POLE XYZ (FT³)**	POLE ATTACHMENT POINT ANGLES (deg.): D	E1	E2	F	G1	G2	H	I1	I2	FOUNDATION DESIGN XYZ (FT³)	SOIL BEARING PRESSURE (PSF)	FOUNDATION DEPTH (FT): ALTERNATE 1 3' RD.	ALTERNATE 1 3' SQ.	ALTERNATE 1 4' RD.	ALTERNATE 2 3' RD.	ALTERNATE 2 4' RD.	REMARKS
①	STEPTOE ST	10+27.75	50.0		X			III	19	40	50		38.5		32.5	27.5			16		9	9.2		9.2			9.2			9.2		16	16	15	50	1358											1500	1000	11'	9'	9'	15'	12'	STANDARD (PER WSDOT STD PLAN J–26.10–03)
②	STEPTOE ST	9+55.30	93.5		X			III	19	40	45		32.5		30	22					9	9.2		9.2			9.2					16	16	15	45	1059											1350	1000	11'	9'	9'	11'	9'	STANDARD (PER WSDOT STD PLAN J–26.10–03)
③	STEPTOE ST	9+67.00	59.5	X				III	19	40	49		38			27			15.5		9	9.2		9.2			9.2			9.2		16	16	15	50	1340											1350	1000	11'	9'	9'	11'	9'	STANDARD (PER WSDOT STD PLAN J–26.10–03)
④	STEPTOE ST	10+49.90	50.0	X				III	19	40	46		35.5			23					9	9.2		9.2								16	16	15	50	1105											1350	1000	11'	9'	9'	11'	9'	STANDARD (PER WSDOT STD PLAN J–26.10–03)
⑤	STEPTOE ST	10+22.25	90.5		X			I																																++									STANDARD (PER WSDOT STD PLAN J–26.10–04)
⑥	STEPTOE ST	9+63.50	79.6		X			I																																++									STANDARD (PER WSDOT STD PLAN J–26.10–04)
⑦	STEPTOE ST	9+31.50	51.5		X			I																																++									STANDARD (PER WSDOT STD PLAN J–26.10–04)
⑧	STEPTOE ST	9+75.50	93.5	X				I																																++									STANDARD (PER WSDOT STD PLAN J–26.10–04)
⑨																																								++									STANDARD (PER WSDOT STD PLAN J–26.10–04)
⑩																																								++									STANDARD (PER WSDOT STD PLAN J–26.10–04)
⑪																																								++									STANDARD (PER WSDOT STD PLAN J–26.10–04)
⑫																																								++									STANDARD (PER WSDOT STD PLAN J–26.10–04)

*** ELEVATION IS TO TOP OF FOUNDATION. FIELD VERIFY ELEVATION PRIOR TO ORDERING SIGNAL STANDARDS.**

**** CALCULATED POLE XYZ (FT^3) IS THE SUM OF THE TOTAL XYZ (FT^3) FOR THE SIGNAL ARM AND THE XYZ (FT^3) FOR THE LUMINAIRE ARM (IF PRESENT).**

+ FIELD DRILLED AND INSTALLED. ALIGN PROPOSED SIGNAL HEAD WITH THROUGH LANES.

++ FIELD DRILLED AND INSTALLED. ALIGN WITH PROPOSED CROSSWALK.

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Phone: 509.783.2144
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NO.	DESCRIPTION	REVISION DATE	BY
			APR.

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

TRAFFIC SIGNAL POLE CHART

FILE: 07-21-030_TS-5
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/26/2022

SHEET NUMBER:
TS-4

Plot Date:8/30/2022 3:44 PM Plotted By: William Gillen
Date Created:8/26/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_TS-5.DWG

1 CITY OF RICHLAND INTEGRAL TERMINAL COMPARTMENT
SCALE:

2 CITY OF RICHLAND CABINET FOUNDATION
SCALE:

3 CITY OF RICHLAND SERVICE ENRANCE
SCALE:

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REVISION

NO.	DESCRIPTION	BY	APP.	DATE

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

TRAFFIC SIGNAL DETAILS

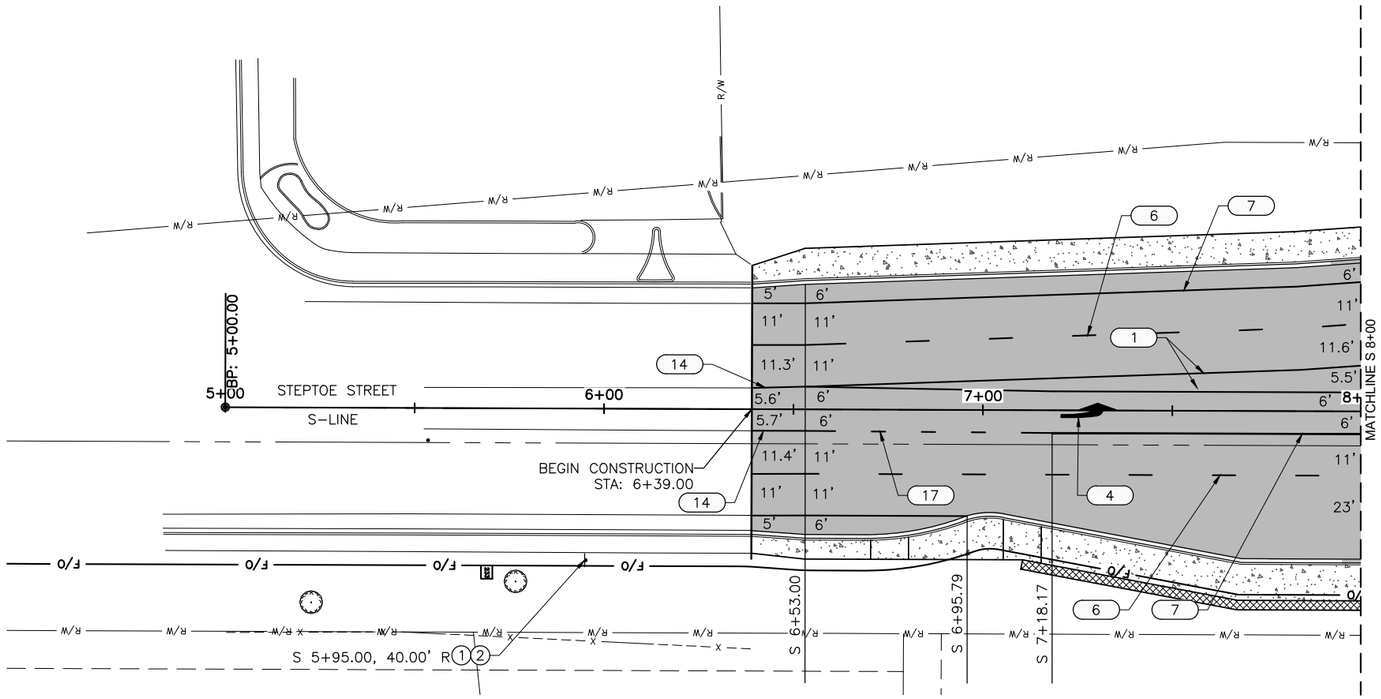
FILE : 07-21-030_TS-6
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD

ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 3/25/2022

SHEET NUMBER:
TS-5

Plot Date:8/30/2022 3:44 PM Plotted By: William Gillen
Date Created:3/22/2022 \\JUB.COM\C-CENTRAL\CLIENTS\WA\YOUNG\ASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_TS-6.DWG



KEYED NOTES

1. PLASTIC DOUBLE YELLOW CENTER LINE WITH 4" SEPARATION PER WSDOT STD PLAN M-20.10-03
2. PLASTIC WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03
3. PLASTIC TYPE 1S TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
4. PLASTIC TYPE 2SL TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
5. PLASTIC 4" WHITE DOTTED LANE OR EXTENSION LINE WITH SKIP PATTERN (1' LINE AND 3' GAP) PER WSDOT STD PLAN M-20.10-03
6. PLASTIC WHITE LANE LINE PER WSDOT STD PLAN M-20.10-03
7. PLASTIC 8" WHITE WIDE LANE LINE PER WSDOT STD PLAN M-20.10-03
8. PLASTIC CROSSWALK LINE PER WSDOT STD PLAN M-15.10-01
9. PLASTIC STOP LINE PER WSDOT STD PLAN M-24.60-04
10. PLASTIC TYPE 2SR TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
11. PLASTIC TYPE 3SR TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
12. PLASTIC BICYCLE LANE SYMBOL PER WSDOT STD PLAN M-9-50.02
13. PLASTIC TRAFFIC DIVIDER. SEE PLASTIC TRAFFIC DIVIDER DETAIL THIS SHEET
14. PLASTIC TWO-WAY LEFT-TURN CENTER LINE PER WSDOT STD PLAN M-20.10-03
15. PLASTIC TYPE 6SL TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
16. PLASTIC YIELD LINE SYMBOL (SHARKS TEETH) PER WSDOT STD PLAN M-24.60
17. PLASTIC 4" WHITE DOTTED EXTENSION LINE WITH SKIP PATTERN (2' LINE AND 6' GAP) PER WSDOT STD PLAN M-20.10-03

TRAFFIC SIGN PLACEMENT SCHEDULE

SIGN NO.	MUTCD DESCRIPTION	SIZE	DESCRIPTION	FINISH
1	R3-17	18"x24"	BIKE LANE	
2	R3-17bP	24"x8"	ENDS	
3	R3-17aP	24"x8"	BEGINS	

LEGEND

- PROPOSED HOT MIX ASPHALT (HMA)
- PROPOSED CONCRETE

0 20 40
SCALE IN FEET

J-U-B ENGINEERS, INC.
2810 W. Clearwater Ave.
Suite 201
Kennewick, WA 99336
Phone: 509.783.2144
www.jub.com

NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

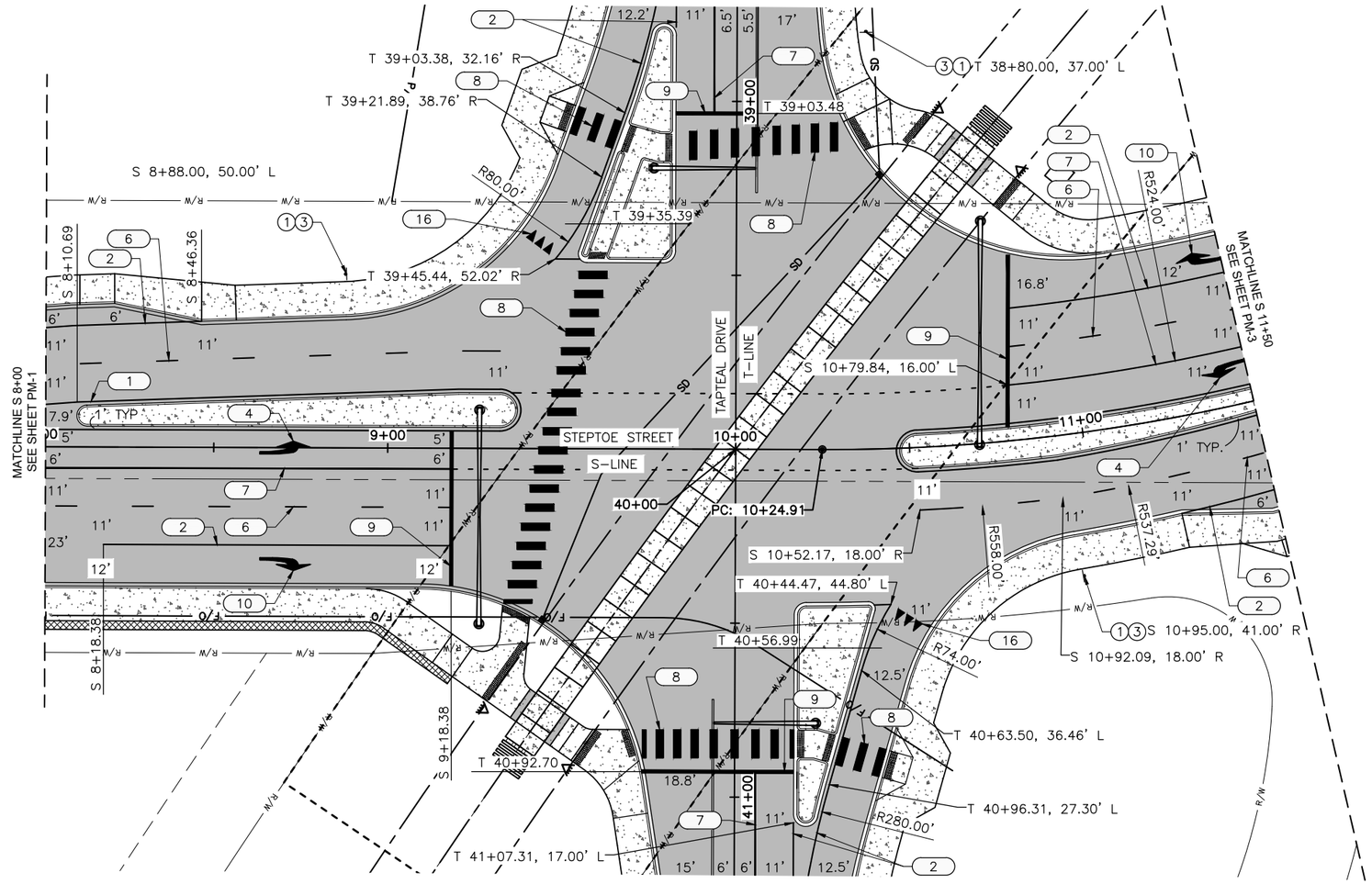
STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

PAVEMENT MARKINGS
STA 5+00.00 TO STA 8+00.00

FILE : 07-21-030_PM-1
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE. IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 7/28/2022

SHEET NUMBER:
PM-1

Plot Date:8/30/2022 3:44 PM Plotted By: William Gillen
Date Created:7/26/2022 \\JUB.COM\CENTRAL\CLIENTS\WAYOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_PM-1.DWG



KEYED NOTES

1. PLASTIC DOUBLE YELLOW CENTER LINE WITH 4" SEPARATION PER WSDOT STD PLAN M-20.10-03
2. PLASTIC WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03
3. PLASTIC TYPE 1S TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
4. PLASTIC TYPE 2SL TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
5. PLASTIC 4" WHITE DOTTED LANE OR EXTENSION LINE WITH SKIP PATTERN (1' LINE AND 3' GAP) PER WSDOT STD PLAN M-20.10-03
6. PLASTIC WHITE LANE LINE PER WSDOT STD PLAN M-20.10-03
7. PLASTIC 8" WHITE WIDE LANE LINE PER WSDOT STD PLAN M-20.10-03
8. PLASTIC CROSSWALK LINE PER WSDOT STD PLAN M-15.10-01
9. PLASTIC STOP LINE PER WSDOT STD PLAN M-24.60-04
10. PLASTIC TYPE 2SR TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
11. PLASTIC TYPE 3SR TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
12. PLASTIC BICYCLE LANE SYMBOL PER WSDOT STD PLAN M-9-50.02
13. PLASTIC TRAFFIC DIVIDER. SEE PLASTIC TRAFFIC DIVIDER DETAIL THIS SHEET
14. PLASTIC TWO-WAY LEFT-TURN CENTER LINE PER WSDOT STD PLAN M-20.10-03
15. PLASTIC TYPE 6SL TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
16. PLASTIC YIELD LINE SYMBOL (SHARKS TEETH) PER WSDOT STD PLAN M-24.60

TRAFFIC SIGN PLACEMENT SCHEDULE

SIGN NO.	MUTCD DESCRIPTION	SIZE	DESCRIPTION	FINISH
(1)	R3-17	18"x24"	BIKE LANE	
(2)	R3-17bP	24"x8"	ENDS	
(3)	R3-17aP	24"x8"	BEGINS	

LEGEND

- PROPOSED HOT MIX ASPHALT (HMA)
- PROPOSED CONCRETE

0 20 40
SCALE IN FEET

J-U-B ENGINEERS, INC.
2810 W. Clearwater Ave.
Suite 201
Kennewick, WA 99336
Phone: 509.783.2144
www.jub.com

NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

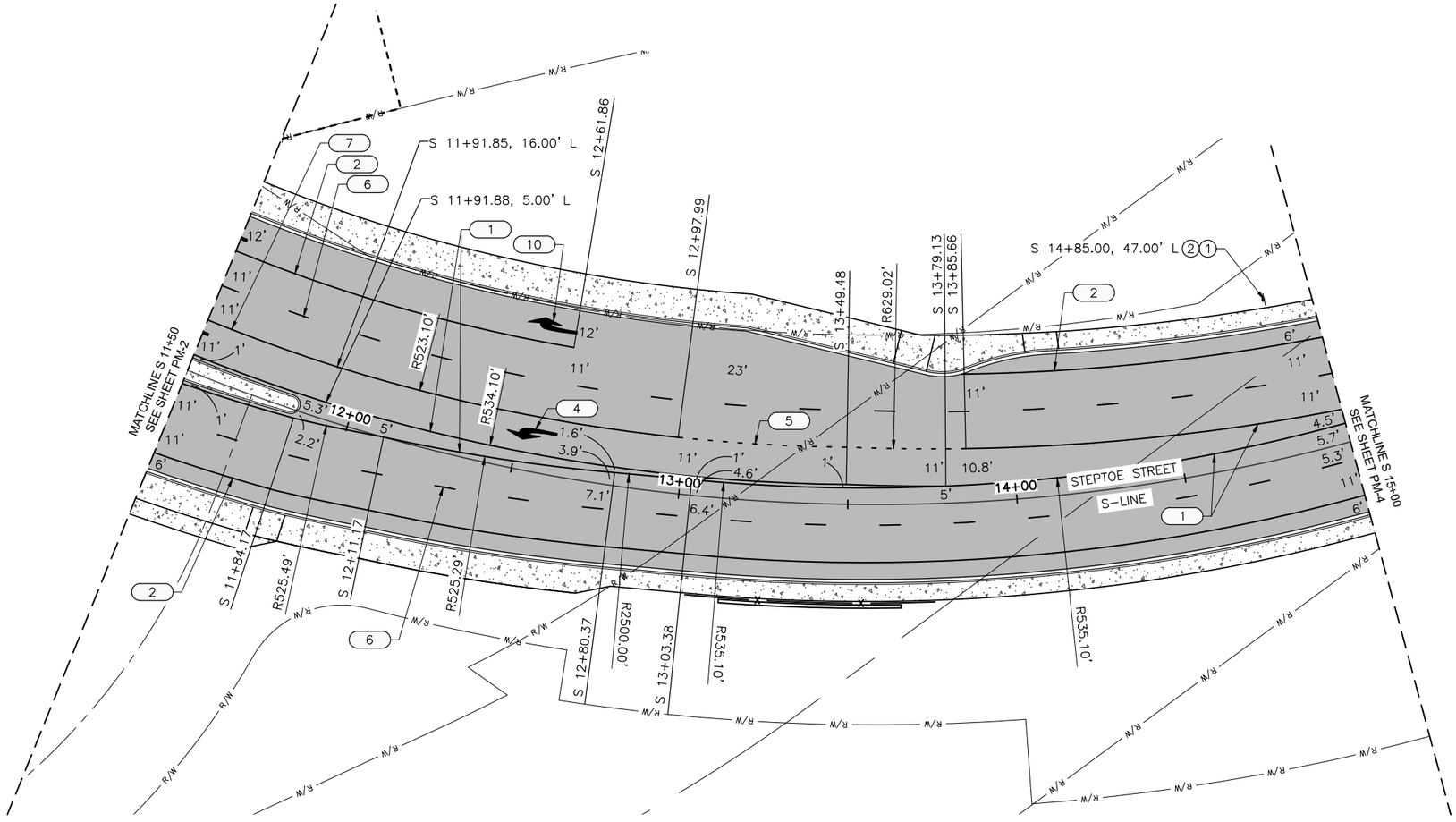
STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

PAVEMENT MARKINGS AND SIGNING PLAN
STA 8+ 00.00 TO STA 11+50.00

FILE : 07-21-030_PM-2
JUB PROJ. # :07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 7/28/2022

SHEET NUMBER:
PM-2

Plot Date:8/30/2022 3:44 PM Plotted By: William Gillan
Date Created:7/26/2022 \\JUB.COM\CENTRAL\CLIENTS\WAYOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_PM-2.DWG



KEYED NOTES

1. PLASTIC DOUBLE YELLOW CENTER LINE WITH 4" SEPARATION PER WSDOT STD PLAN M-20.10-03
2. PLASTIC WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03
3. PLASTIC TYPE 1S TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
4. PLASTIC TYPE 2SL TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
5. PLASTIC 4" WHITE DOTTED LANE OR EXTENSION LINE WITH SKIP PATTERN (1' LINE AND 3' GAP) PER WSDOT STD PLAN M-20.10-03
6. PLASTIC WHITE LANE LINE PER WSDOT STD PLAN M-20.10-03
7. PLASTIC 8" WHITE WIDE LANE LINE PER WSDOT STD PLAN M-20.10-03
8. PLASTIC CROSSWALK LINE PER WSDOT STD PLAN M-15.10-01
9. PLASTIC STOP LINE PER WSDOT STD PLAN M-24.60-04
10. PLASTIC TYPE 2SR TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
11. PLASTIC TYPE 3SR TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
12. PLASTIC BICYCLE LANE SYMBOL PER WSDOT STD PLAN M-9-50.02
13. PLASTIC TRAFFIC DIVIDER. SEE PLASTIC TRAFFIC DIVIDER DETAIL THIS SHEET
14. PLASTIC TWO-WAY LEFT-TURN CENTER LINE PER WSDOT STD PLAN M-20.10-03
15. PLASTIC TYPE 6SL TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
16. PLASTIC YIELD LINE SYMBOL (SHARKS TEETH) PER WSDOT STD PLAN M-24.60

TRAFFIC SIGN PLACEMENT SCHEDULE

SIGN NO.	MUTCD DESCRIPTION	SIZE	DESCRIPTION	FINISH
(1)	R3-17	18"x24"	BIKE LANE	
(2)	R3-17bP	24"x8"	ENDS	
(3)	R3-17aP	24"x8"	BEGINS	

LEGEND

PROPOSED HOT MIX ASPHALT (HMA)

PROPOSED CONCRETE

0 20 40

SCALE IN FEET

J-U-B ENGINEERS, INC.
2810 W. Clearwater Ave.
Suite 201
Kennewick, WA 99336
Phone: 509.783.2144
www.jub.com

NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

PAVEMENT MARKINGS AND SIGNING PLAN
STA 11+50.00 TO STA 15+ 00.00

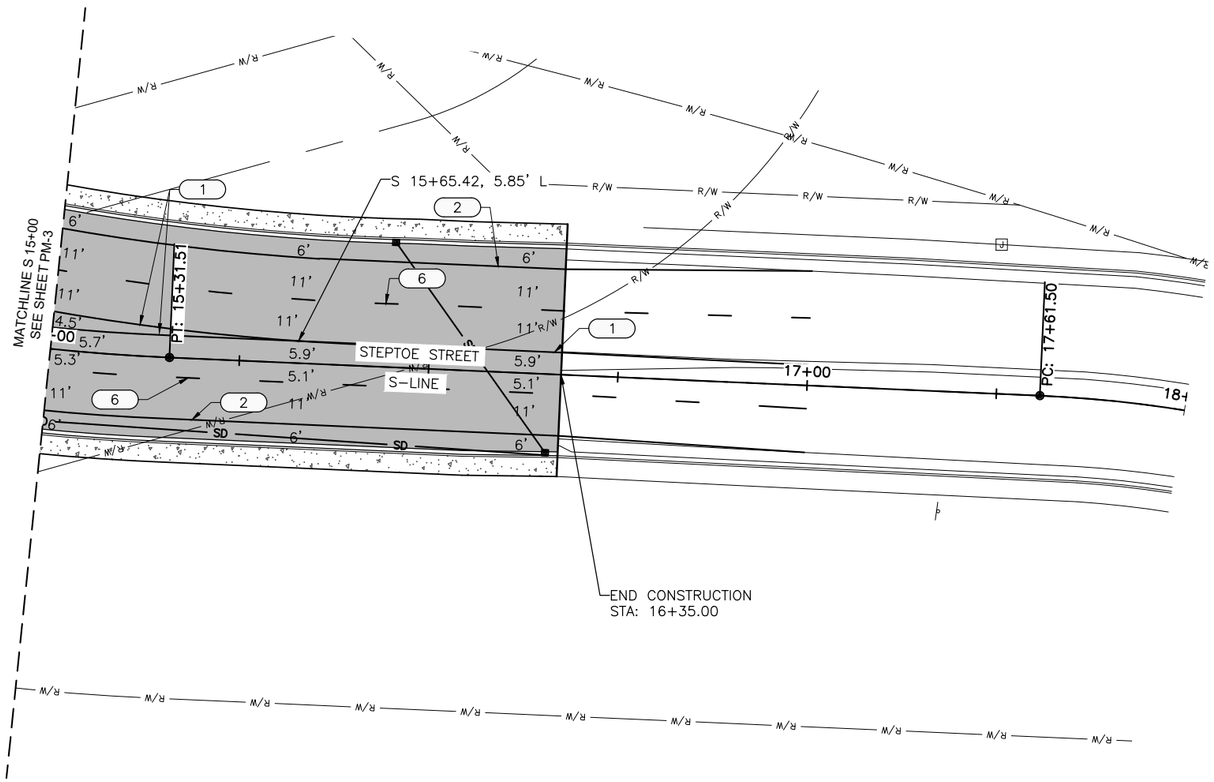
FILE : 07-21-030_PM-3
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 7/28/2022

SHEET NUMBER:
PM-3

Plot Date:8/30/2022 3:45 PM Plotted By: William Gillen
Date Created7/26/2022 \\JUB.COM\CENTRAL\CLIENTS\WAYOUNG\ASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_PM-3.DWG

KEYED NOTES

1. PLASTIC DOUBLE YELLOW CENTER LINE WITH 4" SEPARATION PER WSDOT STD PLAN M-20.10-03
2. PLASTIC WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03
3. PLASTIC TYPE 1S TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
4. PLASTIC TYPE 2SL TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
5. PLASTIC 4" WHITE DOTTED LANE OR EXTENSION LINE WITH SKIP PATTERN (1' LINE AND 3' GAP) PER WSDOT STD PLAN M-20.10-03
6. PLASTIC WHITE LANE LINE PER WSDOT STD PLAN M-20.10-03
7. PLASTIC 8" WHITE WIDE LANE LINE PER WSDOT STD PLAN M-20.10-03
8. PLASTIC CROSSWALK LINE PER WSDOT STD PLAN M-15.10-01
9. PLASTIC STOP LINE PER WSDOT STD PLAN M-24.60-04
10. PLASTIC TYPE 2SR TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
11. PLASTIC TYPE 3SR TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
12. PLASTIC BICYCLE LANE SYMBOL PER WSDOT STD PLAN M-9-50.02
13. PLASTIC TRAFFIC DIVIDER. SEE PLASTIC TRAFFIC DIVIDER DETAIL THIS SHEET
14. PLASTIC TWO-WAY LEFT-TURN CENTER LINE PER WSDOT STD PLAN M-20.10-03
15. PLASTIC TYPE 6SL TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
16. PLASTIC YIELD LINE SYMBOL (SHARKS TEETH) PER WSDOT STD PLAN M-24.60



LEGEND

- PROPOSED HOT MIX ASPHALT (HMA)
- PROPOSED CONCRETE

0 20 40

SCALE IN FEET

J-U-B ENGINEERS, INC.

J-U-B ENGINEERS, INC.
2810 W. Clearwater Ave.
Suite 201
Kennewick, WA 99336
Phone: 509.783.2144
www.jub.com

NO.	DESCRIPTION	BY	APPR.	DATE
	REVISION			

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

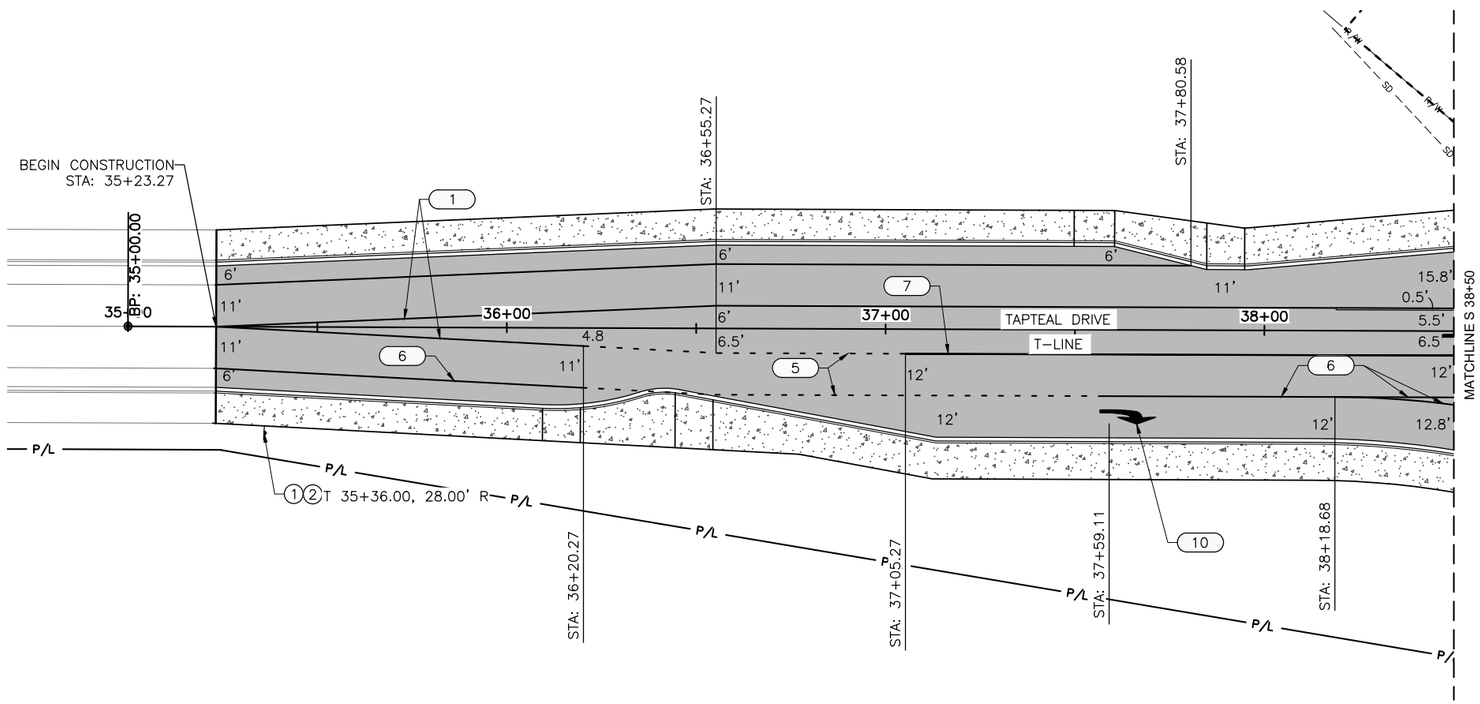
PAVEMENT MARKINGS AND SIGNING PLAN
STA 15+00.00 TO STA 18+00.00

FILE :	07-21-030_PM-4
JUB PROJ. # :	07-21-030
DRAWN BY:	WG
DESIGN BY:	WG
CHECKED BY:	RD
	ONE INCH AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED:	7/28/2022

SHEET NUMBER:

PM-4

Plot Date:8/30/2022 3:45 PM Plotted By: William Gillen
Date Created:7/26/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_PM-4.DWG



KEYED NOTES

1. PLASTIC DOUBLE YELLOW CENTER LINE WITH 4" SEPARATION PER WSDOT STD PLAN M-20.10-03
2. PLASTIC WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03
3. PLASTIC TYPE 1S TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
4. PLASTIC TYPE 2SL TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
5. PLASTIC 4" WHITE DOTTED LANE OR EXTENSION LINE WITH SKIP PATTERN (1' LINE AND 3' GAP) PER WSDOT STD PLAN M-20.10-03
6. PLASTIC WHITE LANE LINE PER WSDOT STD PLAN M-20.10-03
7. PLASTIC 8" WHITE WIDE LANE LINE PER WSDOT STD PLAN M-20.10-03
8. PLASTIC CROSSWALK LINE PER WSDOT STD PLAN M-15.10-01
9. PLASTIC STOP LINE PER WSDOT STD PLAN M-24.60-04
10. PLASTIC TYPE 2SR TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
11. PLASTIC TYPE 3SR TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
12. PLASTIC BICYCLE LANE SYMBOL PER WSDOT STD PLAN M-9-50.02
13. PLASTIC TRAFFIC DIVIDER. SEE PLASTIC TRAFFIC DIVIDER DETAIL THIS SHEET
14. PLASTIC TWO-WAY LEFT-TURN CENTER LINE PER WSDOT STD PLAN M-20.10-03
15. PLASTIC TYPE 6SL TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
16. PLASTIC YIELD LINE SYMBOL (SHARKS TEETH) PER WSDOT STD PLAN M-24.60

TRAFFIC SIGN PLACEMENT SCHEDULE

SIGN NO.	MUTCD DESCRIPTION	SIZE	DESCRIPTION	FINISH
1	R3-17	18"x24"	BIKE LANE	
2	R3-17bP	24"x8"	ENDS	
3	R3-17aP	24"x8"	BEGINS	

LEGEND

- PROPOSED HOT MIX ASPHALT (HMA)
- PROPOSED CONCRETE

N

0 20 40

SCALE IN FEET

J-U-B ENGINEERS, INC.
2810 W. Clearwater Ave.
Suite 201
Kennewick, WA 99336
Phone: 509.783.2144
www.jub.com

NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

PAVEMENT MARKINGS AND SIGNING PLAN
STA 36+00.00 TO STA 38+50.00

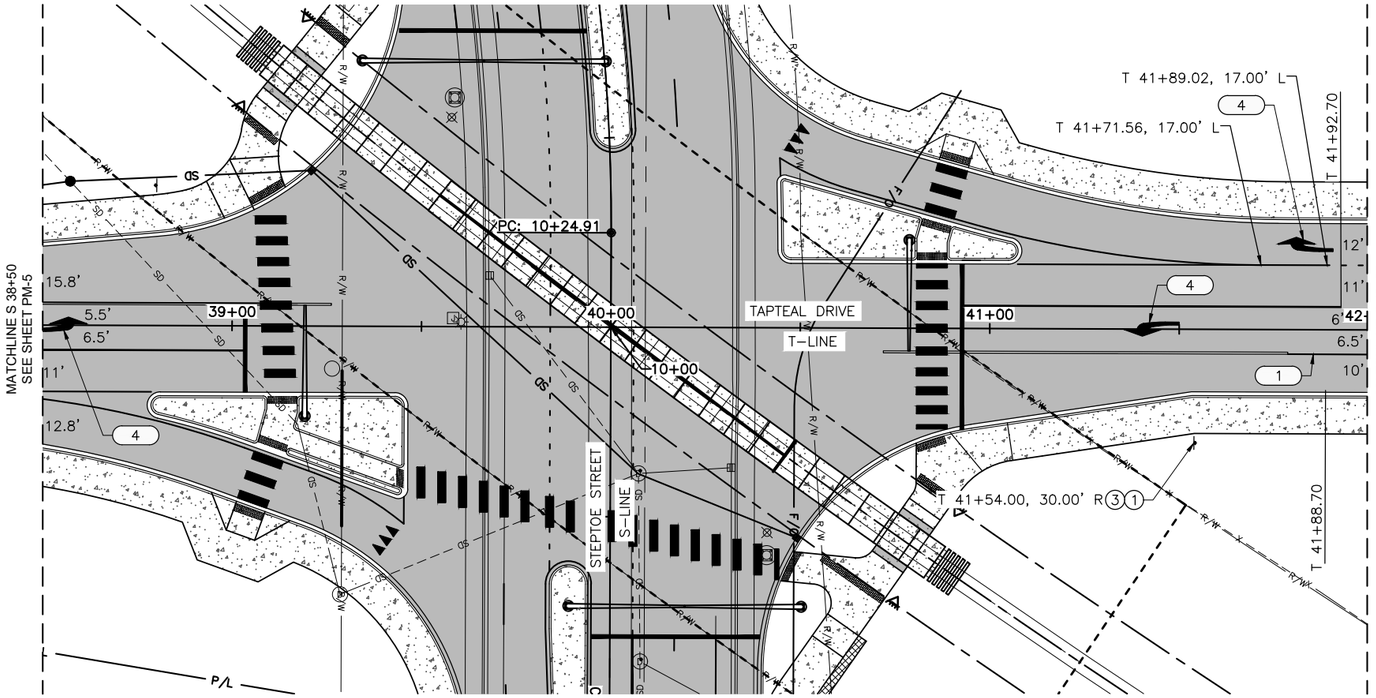
FILE : 07-21-030_PM-5
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 7/28/2022

SHEET NUMBER:
PM-5

Plot Date:8/30/2022 3:45 PM Plotted By: William Gillen
Data Created7/26/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_PM-5.DWG

KEYED NOTES

1. PLASTIC DOUBLE YELLOW CENTER LINE WITH 4" SEPARATION PER WSDOT STD PLAN M-20.10-03
2. PLASTIC WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03
3. PLASTIC TYPE 1S TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
4. PLASTIC TYPE 2SL TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
5. PLASTIC 4" WHITE DOTTED LANE OR EXTENSION LINE WITH SKIP PATTERN (1' LINE AND 3' GAP) PER WSDOT STD PLAN M-20.10-03
6. PLASTIC WHITE LANE LINE PER WSDOT STD PLAN M-20.10-03
7. PLASTIC 8" WHITE WIDE LANE LINE PER WSDOT STD PLAN M-20.10-03
8. PLASTIC CROSSWALK LINE PER WSDOT STD PLAN M-15.10-01
9. PLASTIC STOP LINE PER WSDOT STD PLAN M-24.60-04
10. PLASTIC TYPE 2SR TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
11. PLASTIC TYPE 3SR TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
12. PLASTIC BICYCLE LANE SYMBOL PER WSDOT STD PLAN M-9-50.02
13. PLASTIC TRAFFIC DIVIDER. SEE PLASTIC TRAFFIC DIVIDER DETAIL THIS SHEET
14. PLASTIC TWO-WAY LEFT-TURN CENTER LINE PER WSDOT STD PLAN M-20.10-03
15. PLASTIC TYPE 6SL TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
16. PLASTIC YIELD LINE SYMBOL (SHARKS TEETH) PER WSDOT STD PLAN M-24.60



LEGEND

- PROPOSED HOT MIX ASPHALT (HMA)
- PROPOSED CONCRETE

SCALE IN FEET: 0, 20, 40

TRAFFIC SIGN PLACEMENT SCHEDULE

SIGN NO.	MUTCD DESCRIPTION	SIZE	DESCRIPTION	FINISH
1	R3-17	18"x24"	BIKE LANE	
2	R3-17bP	24"x8"	ENDS	
3	R3-17aP	24"x8"	BEGINS	

J-U-B ENGINEERS, INC.

J-U-B ENGINEERS, INC.
2810 W. Clearwater Ave.
Suite 201
Kennewick, WA 99336
Phone: 509.783.2144
www.jub.com

NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

PAVEMENT MARKINGS AND SIGNING PLAN
STA 38+ 50.00 TO STA 42+ 00.00

FILE : 07-21-030_PM-6
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 7/26/2022

SHEET NUMBER:
PM-6

Plot Date:8/30/2022 3:46 PM Plotted By: William Gillen
Date Created:7/26/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEALDESIGN\CAD\SHEET\07-21-030_PM-6.DWG

KEYED NOTES

1. PLASTIC DOUBLE YELLOW CENTER LINE WITH 4" SEPARATION PER WSDOT STD PLAN M-20.10-03
2. PLASTIC WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-03
3. PLASTIC TYPE 1S TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
4. PLASTIC TYPE 2SL TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
5. PLASTIC 4" WHITE DOTTED EXTENSION LINE WITH SKIP PATTERN (2' LINE AND 6' GAP) PER WSDOT STD PLAN M-20.10-03
6. PLASTIC WHITE LANE LINE PER WSDOT STD PLAN M-20.10-03
7. PLASTIC 8" WHITE WIDE LANE LINE PER WSDOT STD PLAN M-20.10-03
8. PLASTIC CROSSWALK LINE PER WSDOT STD PLAN M-15.10-01
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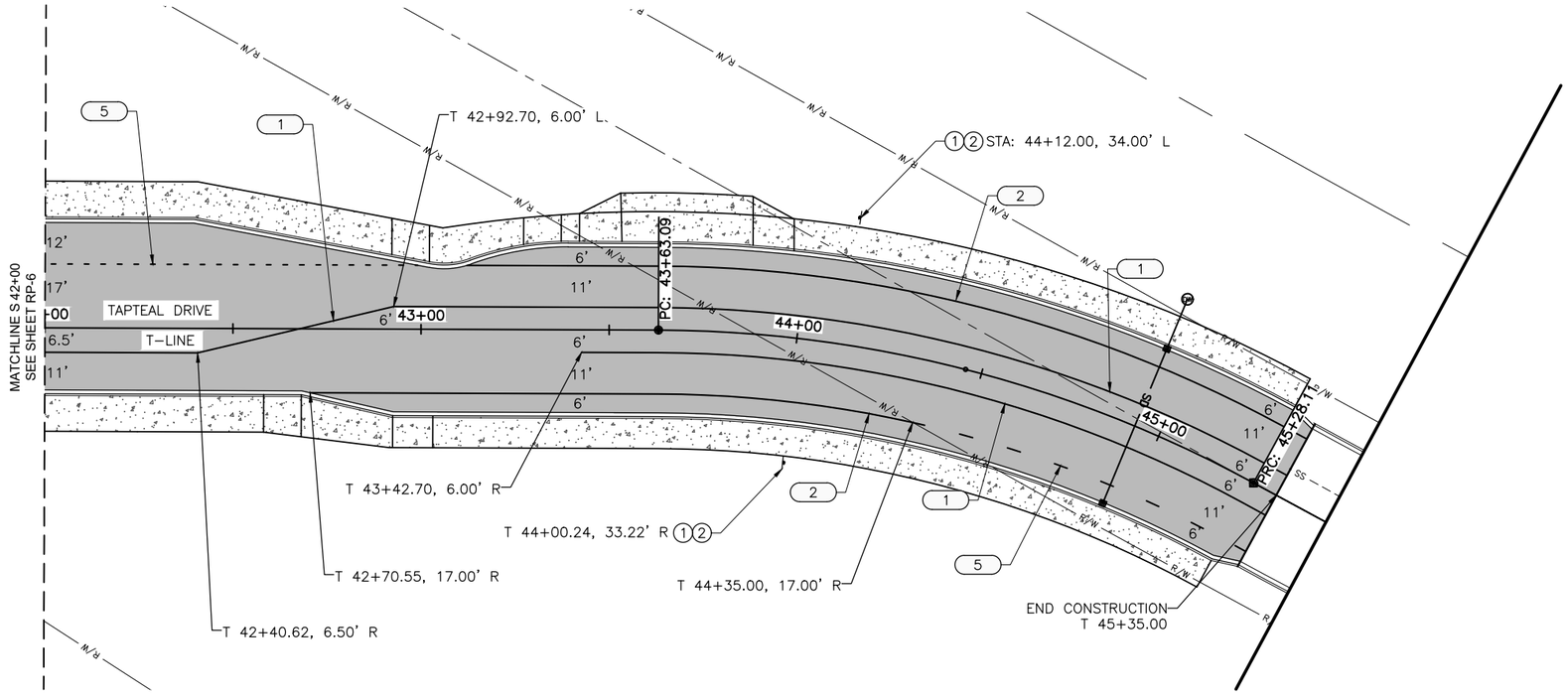
10. PLASTIC TYPE 2SR TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
11. PLASTIC TYPE 3SR TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
12. PLASTIC BICYCLE LANE SYMBOL PER WSDOT STD PLAN M-9-50.02
13. PLASTIC TRAFFIC DIVIDER. SEE PLASTIC TRAFFIC DIVIDER DETAIL THIS SHEET
14. PLASTIC TWO-WAY LEFT-TURN CENTER LINE PER WSDOT STD PLAN M-20.10-03
15. PLASTIC TYPE 6SL TRAFFIC ARROW FOR LOW SPEED ROADWAYS PER WSDOT STD PLAN M-24.40-02
16. PLASTIC YIELD LINE SYMBOL (SHARKS TEETH) PER WSDOT STD PLAN M-24.60



TRAFFIC SIGN PLACEMENT SCHEDULE

SIGN NO.	MUTCD DESCRIPTION	SIZE	DESCRIPTION	FINISH
(1)	R3-17	18"x24"	BIKE LANE	
(2)	R3-17bP	24"x8"	ENDS	
(3)	R3-17aP	24"x8"	BEGINS	

LEGEND

- PROPOSED HOT MIX ASPHALT (HMA)
- PROPOSED CONCRETE

N

0 20 40

SCALE IN FEET

J-U-B ENGINEERS, INC.

J-U-B ENGINEERS, INC.
2810 W. Clearwater Ave.
Suite 201
Kennewick, WA 99336
Phone: 509.783.2144
www.jub.com

NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

STEPTOE AND TAPTEAL INTERSECTION YOUNG ASSET MANAGMENT

PAVEMENT MARKINGS AND SIGNING PLAN STA 42+ 00.00 TO STA 45+ 50.00

FILE : 07-21-030_PM-7
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD

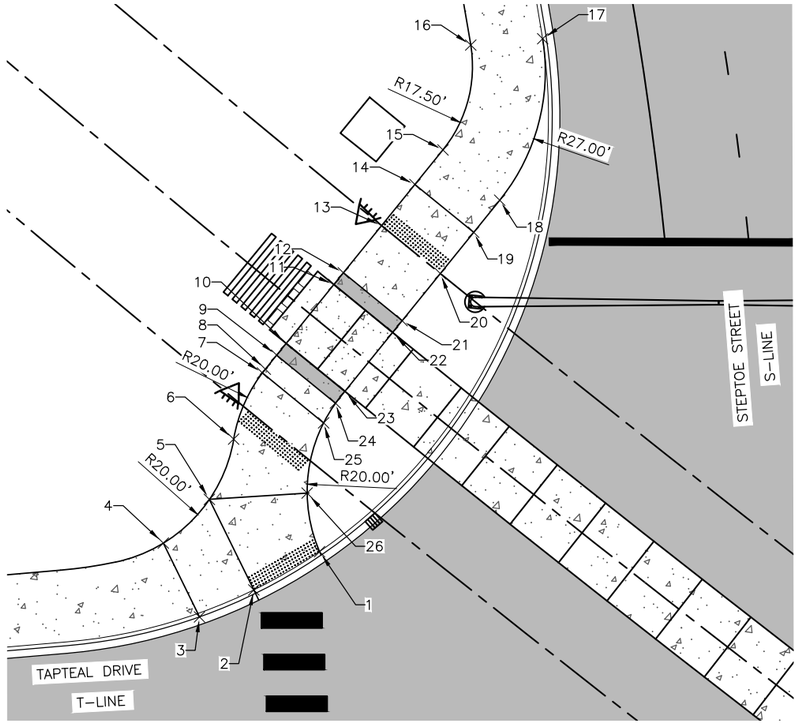
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

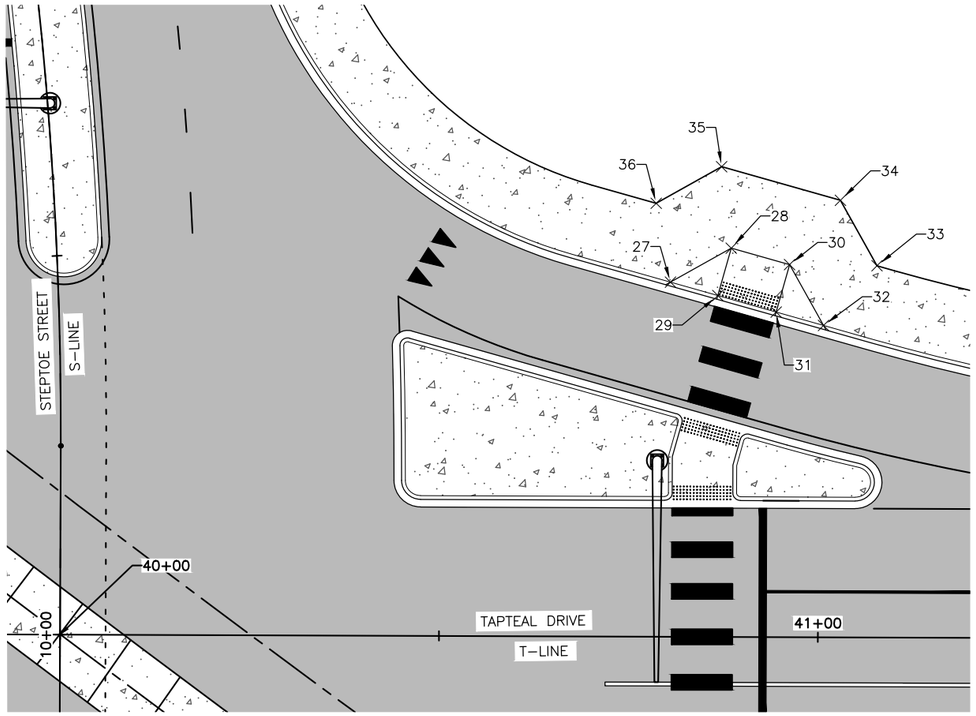
LAST UPDATED: 7/28/2022

SHEET NUMBER:

PM-7

Plot Date:8/30/2022 3:46 PM Plotted By: William Gillen
Data Created7/26/2022 \\JUB.COM\CENTRAL\CLIENTS\WAYOUNG\ASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_PM-7.DWG





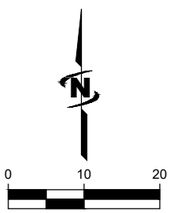
CURB RAMP DATA			
POINT #	STATION / REFERENCE		ELEVATION
1	T 39+13.72, 37.09' L	TBC	414.54
2	T 39+05.06, 32.00' L	TBC	414.71
3	T 38+97.91, 28.41' L	TBC	414.82
4	T 38+93.09, 38.14' L	BSW	415.51
5	T 38+99.15, 43.94' L	BSW	414.88
6	T 39+02.33, 51.89' L	BSW	414.43
7	T 39+06.03, 60.70' L	BSW	413.94
8	T 39+06.47, 61.14' L	BSW	415.33
9	T 39+07.96, 62.99' L	BSW	414.53
10	T 39+09.21, 64.55' L	BSW	413.86
11	S 10+80.95, 82.05' L	BSW	413.68
12	S 10+82.61, 80.64' L	BSW	413.66
13	S 10+89.19, 74.96' L	BSW	413.59

CURB RAMP DATA			
POINT #	STATION / REFERENCE		ELEVATION
14	S 10+94.81, 69.94' L	BSW	413.79
15	S 10+99.43, 65.68' L	BSW	413.32
16	S 11+14.31, 60.00' L	BSW	412.80
17	S 11+13.53, 50.50' L	TBC	412.63
18	S 10+90.92, 59.09' L	BSW	413.46
19	S 10+86.61, 62.97' L	BSW	413.66
20	S 10+80.99, 67.93' L	BSW	413.72
21	S 10+74.41, 73.53' L	BSW	413.80
22	S 10+72.77, 74.90' L	BSW	413.82
23	T 39+17.00, 58.28' L	BSW	414.00
24	T 39+15.76, 56.67' L	BSW	414.03
25	T 39+14.19, 54.08' L	BSW	414.08
26	T 39+12.05, 44.81' L	BSW	414.62

NOTES:
1. ALL TBC ELEVATIONS ARE ADJUSTED FOR RAMPS

TBC – TOP BACK CURB
TBR – TOP BACK RAMP
BSW – BACK SIDEWALK

DETECTABLE WARNING PAD



CURB RAMP DATA			
POINT #	STATION / REFERENCE		ELEVATION
27	T 40+80.38, 46.81' L	TBC	414.89
28	T 40+88.39, 51.32' L	TBR	414.84
29	T 40+86.65, 45.06' L	TBC	414.36
30	T 40+96.10, 49.17' L	TBR	414.75
31	T 40+94.35, 42.91' L	TBC	414.27
32	T 41+00.61, 41.16' L	TBC	414.66
33	T 41+07.64, 49.07' L	BSW	414.80
34	T 41+02.78, 57.69' L	BSW	415.01
35	T 40+87.09, 62.07' L	BSW	415.19
36	T 40+78.47, 57.21' L	BSW	415.13

NOTES:
1. ALL TBC ELEVATIONS ARE ADJUSTED FOR RAMPS

TBC – TOP BACK CURB
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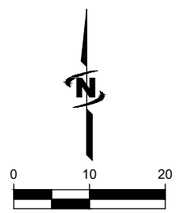
BSW – BACK SIDEWALK

DETECTABLE WARNING PAD



J-U-B ENGINEERS, INC.
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2810 W. Clearwater Ave.
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Phone: 509.783.2144
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NO.	DESCRIPTION	BY	APP.	DATE
	REVISION			

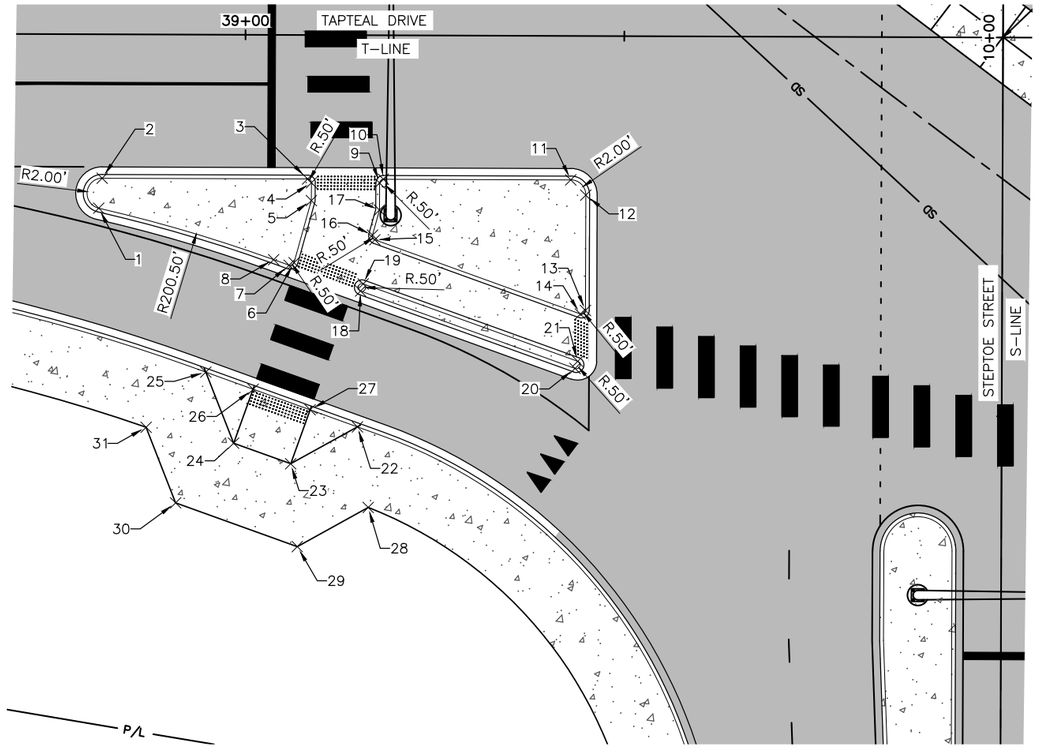
STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

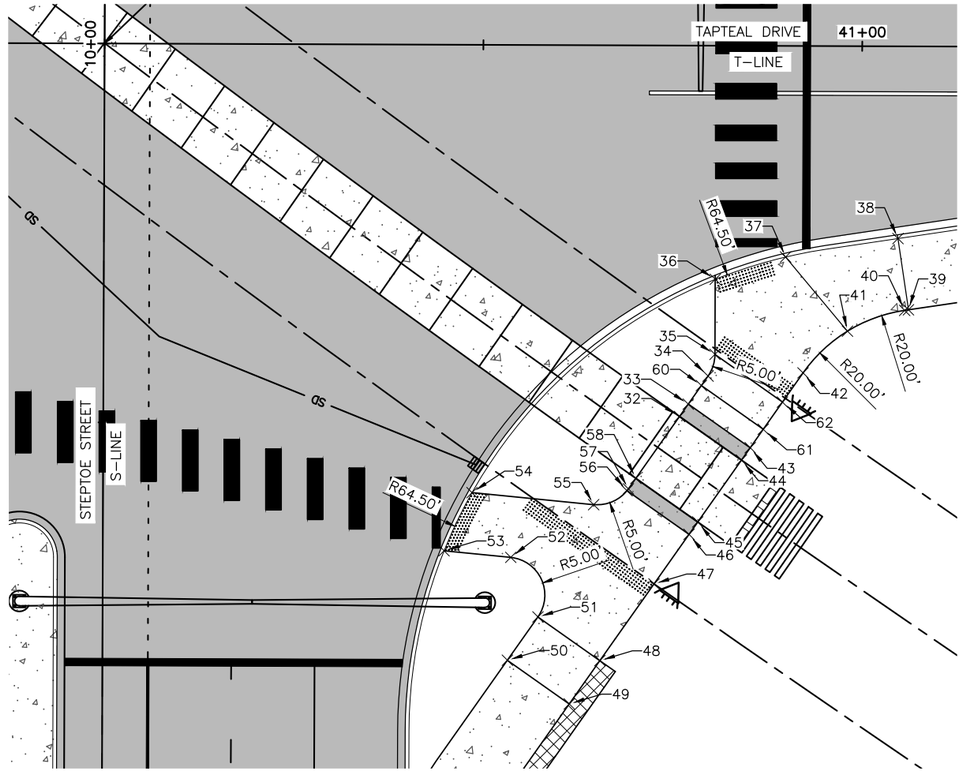
PAVING DETAILS

FILE : 07-21-030_PD-1
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/30/2022

SHEET NUMBER:
PD-1

Plot Date:8/30/2022 3:46 PM Plotted By: William Gillen
Date Created:8/30/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_PD-1.DWG





CURB RAMP DATA

POINT #	STATION / REFERENCE		ELEVATION
1	T 38+80.71, 22.95' R	TBC	416.00
2	T 38+81.15, 19.00' R	TBC	415.96
3	T 39+08.27, 19.00' R	TBC	416.12
4	T 39+08.77, 19.50' R	TBC	416.13
5	T 39+08.77, 21.85' R	TBC	416.17
6	T 39+06.52, 30.05' R	TBC	416.32
7	T 39+05.87, 30.39' R	TBC	416.32
8	T 39+03.83, 29.66' R	TBC	416.29
9	T 39+17.77, 19.50' R	TBC	416.19
10	T 39+18.27, 19.00' R	TBC	416.18
11	T 39+43.00, 19.00' R	TBC	416.33
12	T 39+45.00, 21.00' R	TBC	416.40
13	T 39+45.00, 36.21' R	TBC	416.70
14	T 39+44.33, 36.68' R	TBC	416.72
15	T 39+17.17, 26.99' R	TBC	416.32
16	T 39+16.86, 26.39' R	TBC	416.31

CURB RAMP DATA

POINT #	STATION / REFERENCE		ELEVATION
17	T 39+17.77, 23.06' R	TBC	416.25
18	T 39+15.31, 33.76' R	TBC	416.46
19	T 39+15.65, 32.82' R	TBC	416.44
20	T 39+43.66, 43.88' R	TBC	416.88
21	T 39+44.00, 42.94' R	TBC	416.85
22	T 39+14.96, 51.69' R	TBC	416.73
23	T 39+06.17, 56.59' R	TBR	416.72
24	T 38+98.63, 53.90' R	TBR	416.59
25	T 38+94.93, 44.54' R	TBC	416.37
26	T 39+01.18, 46.77' R	TBC	416.02
27	T 39+08.71, 49.46' R	TBC	416.16
28	T 39+16.43, 62.32' R	BSW	417.01
29	T 39+07.08, 67.53' R	BSW	417.05
30	T 38+91.00, 61.80' R	BSW	416.76
31	T 38+87.06, 51.84' R	BSW	416.48

NOTES:
1. ALL TBC ELEVATIONS ARE ADJUSTED FOR RAMPS

FOC – FACE OF CURB
TBC – TOP BACK CURB
TBR – TOP BACK RAMP
BSW – BACK SIDEWALK

DETECTABLE WARNING PAD

0 10 20
SCALE IN FEET

CURB RAMP DATA

POINT #	STATION / REFERENCE		ELEVATION
32	T 40+76.06, 48.95' R	BSW	416.44
33	T 40+77.20, 47.31' R	BSW	416.41
34	T 40+79.80, 43.60' R	BSW	416.26
35	T 40+80.70, 40.74' R	BSW	416.04
36	T 40+80.70, 30.83' R	TBC	415.89
37	T 40+89.99, 27.85' R	TBC	415.71
38	T 41+04.80, 25.37' R	TBC	415.83
39	T 41+06.23, 34.76' R	BSW	416.02
40	T 41+05.72, 34.84' R	BSW	416.01
41	T 40+98.18, 37.61' R	BSW	415.97
42	T 40+92.34, 43.13' R	BSW	416.09
43	T 40+85.40, 53.04' R	BSW	416.55
44	T 40+84.25, 54.68' R	BSW	416.58
45	S 9+37.14, 78.52' R	BSW	416.76

NOTES:
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TBC – TOP BACK CURB
TBR – TOP BACK RAMP
BSW – BACK SIDEWALK

DETECTABLE WARNING PAD

CURB RAMP DATA

POINT #	STATION / REFERENCE		ELEVATION
46	S 9+35.50, 77.37' R	BSW	416.80
47	S 9+28.95, 72.78' R	BSW	416.96
48	S 9+18.80, 65.66' R	BSW	417.21
49	S 9+13.06, 61.64' R	BSW	417.73
50	S 9+18.80, 53.45' R	BSW	417.70
51	S 9+24.54, 57.47' R	BSW	417.17
52	S 9+32.38, 53.85' R	BSW	417.02
53	S 9+33.23, 45.05' R	TBC	416.88
54	S 9+40.91, 48.71' R	TBC	416.73
55	S 9+39.37, 64.78' R	BSW	416.66
56	S 9+41.24, 69.16' R	BSW	416.64
57	S 9+41.45, 69.38' R	BSW	416.64
58	S 9+42.87, 70.32' R	BSW	416.63
60	S 9+55.15, 78.94' R	BSW	416.37
61	S 9+49.41, 87.12' R	BSW	416.51
62	S 9+53.01, 89.64' R	BSW	416.16

0 10 20
SCALE IN FEET

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NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

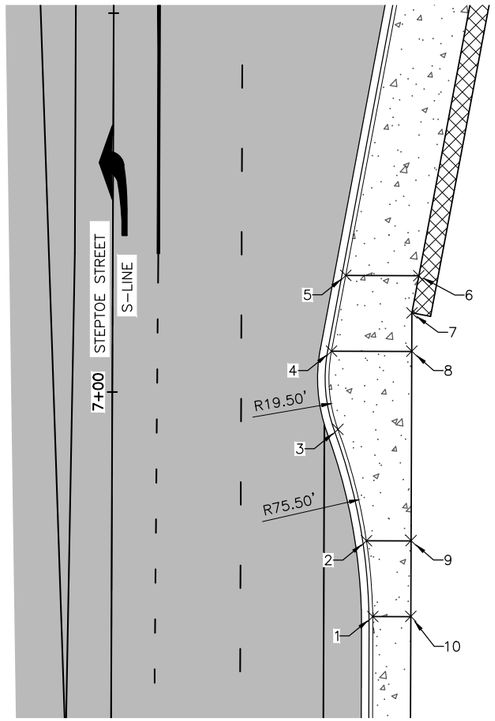
STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

PAVING DETAILS

FILE : 07-21-030_PD-2
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/30/2022

SHEET NUMBER:
PD-2

Plot Date:8/30/2022 3:46 PM Plotted By: William Gillen
Date Created:8/30/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNG\ASSET MGMT\PROJECTS\07-21-030_STEPTOE\TAPTEAL\DESIGN\CAD\SHEET\07-21-030_PD-2.DWG



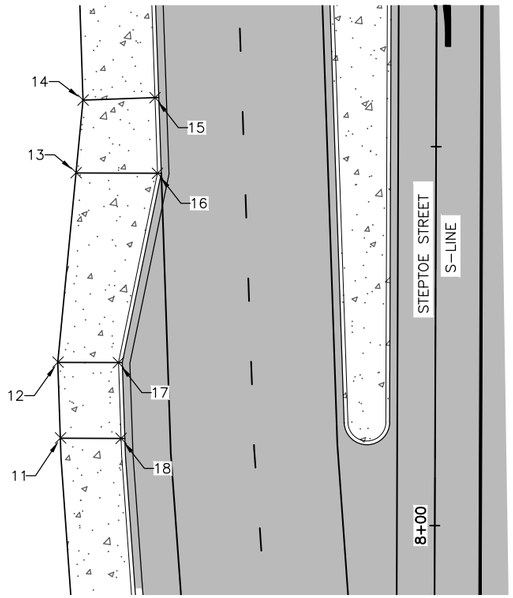
CURB RAMP DATA

POINT #	STATION / REFERENCE		ELEVATION
1	S 6+70.50, 34.48' R	TBC	430.05
2	S 6+80.50, 33.61' R	TBC	428.95
3	S 6+95.18, 29.79' R	TBC	428.09
4	S 7+05.50, 28.90' R	TBC	427.50
5	S 7+15.50, 30.75' R	TBC	427.34
6	S 7+15.52, 40.41' R	BSW	427.53
7	S 7+10.59, 39.50' R	BSW	427.62
8	S 7+05.50, 39.46' R	BSW	427.71
9	S 6+80.50, 39.50' R	BSW	429.07
10	S 6+70.51, 39.52' R	BSW	430.14

NOTES:
1. ALL TBC ELEVATIONS ARE ADJUSTED FOR RAMPS

TBC – TOP BACK CURB
TBR – TOP BACK RAMP
BSW – BACK SIDEWALK

DETECTABLE WARNING PAD



CURB RAMP DATA

POINT #	STATION / REFERENCE		ELEVATION
11	S 8+11.39, 49.41' L	BSW	421.74
12	S 8+21.36, 49.82' L	BSW	420.75
13	S 8+46.36, 47.53' L	BSW	419.76
14	S 8+55.98, 46.61' L	BSW	419.79
15	S 8+56.34, 37.12' L	TBC	419.60
16	S 8+46.36, 36.75' L	TBC	419.55
17	S 8+21.36, 41.81' L	TBC	420.60
18	S 8+11.36, 41.44' L	TBC	421.59

NOTES:
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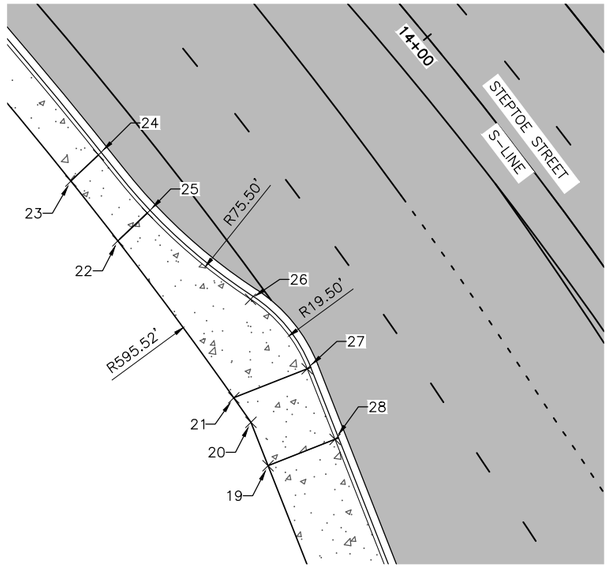
DETECTABLE WARNING PAD



CURB RAMP DATA

POINT #	STATION / REFERENCE		ELEVATION
19	S 13+66.63, 51.32' L	BSW	409.05
20	S 13+73.20, 49.73' L	BSW	408.76
21	S 13+77.54, 49.60' L	BSW	408.57
22	S 14+05.84, 48.58' L	BSW	408.06
23	S 14+16.86, 48.12' L	BSW	408.43
24	S 14+17.04, 43.11' L	TBC	408.32
25	S 14+06.16, 43.24' L	TBC	407.95
26	S 13+87.28, 39.89' L	TBC	408.20
27	S 13+74.50, 39.56' L	TBC	408.37
28	S 13+64.04, 42.11' L	TBC	408.85

NOTES:
1. ALL TBC ELEVATIONS ARE ADJUSTED FOR RAMPS

TBC – TOP BACK CURB
TBR – TOP BACK RAMP
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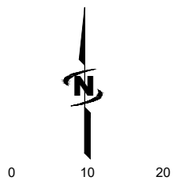
DETECTABLE WARNING PAD



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NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

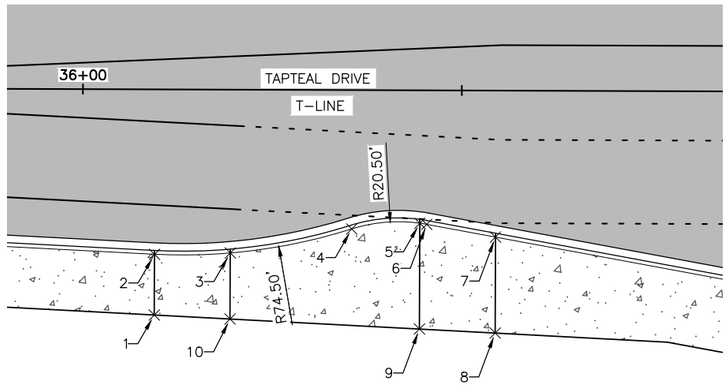
STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

PAVING DETAILS

FILE : 07-21-030_PD-3
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/30/2022

SHEET NUMBER:
PD-3

Plot Date:8/30/2022 3:47 PM Plotted By: William Gillen
Date Created:8/30/2022 \\JUB.COM\C-ENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_PD-3.DWG



CURB RAMP DATA

POINT #	STATION / REFERENCE		ELEVATION
1	T 36+09.52, 29.78' R	BSW	415.30
2	T 36+09.52, 21.77' R	TBC	415.14
3	T 36+19.52, 21.55' R	TBC	414.59
4	T 36+35.55, 18.33' R	TBC	414.55
5	T 36+44.52, 17.54' R	TBC	414.52
6	T 36+45.44, 17.69' R	TBC	414.56
7	T 36+54.52, 19.34' R	TBC	414.92
8	T 36+54.52, 31.99' R	BSW	415.17
9	T 36+44.52, 31.50' R	BSW	414.80
10	T 36+19.52, 30.27' R	BSW	414.77

NOTES:

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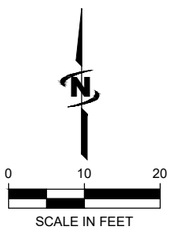
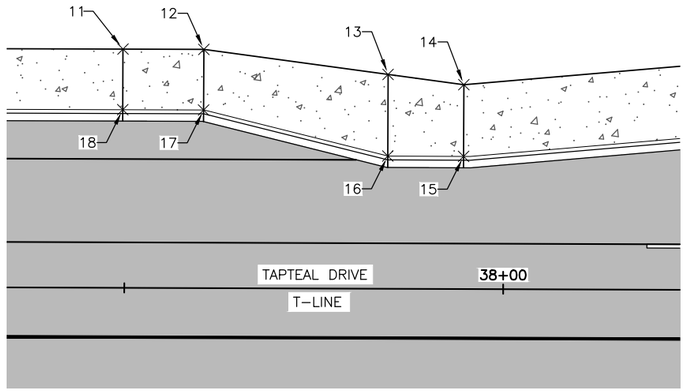
BSW – BACK SIDEWALK
DETECTABLE WARNING PAD





CURB RAMP DATA

POINT #	STATION / REFERENCE		ELEVATION
11	T 37+49.72, 31.50' L	BSW	414.60
12	T 37+60.42, 31.54' L	BSW	414.13
13	T 37+84.72, 28.28' L	BSW	414.43
14	T 37+94.72, 26.96' L	BSW	414.94
15	T 37+94.72, 17.50' L	TBC	414.75
16	T 37+84.72, 17.51' L	TBC	414.21
17	T 37+60.39, 23.50' L	TBC	413.97
18	T 37+49.73, 23.50' L	TBC	414.44

NOTES:

1. ALL TBC ELEVATIONS ARE ADJUSTED FOR RAMPS

TBC – TOP BACK CURB
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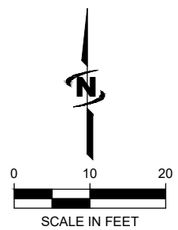
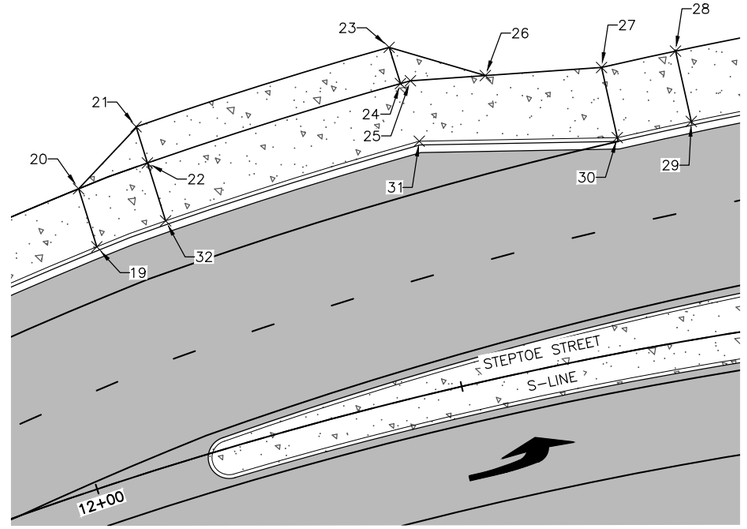
DETECTABLE WARNING PAD





CURB RAMP DATA

POINT #	STATION / REFERENCE		ELEVATION
19	S 11+90.49, 30.45' R	TBC	413.28
20	S 11+90.50, 38.48' R	BSW	413.44
21	S 11+81.55, 44.10' R	BSW	413.19
22	S 11+81.46, 39.10' R	BSW	413.09
23	S 11+49.27, 45.76' R	BSW	413.69
24	S 11+48.91, 40.78' R	BSW	413.59
25	S 11+47.65, 40.84' R	BSW	413.62
26	S 11+38.52, 39.40' R	BSW	413.77
27	S 11+24.28, 37.50' R	BSW	414.01
28	S 11+14.94, 37.95' R	BSW	414.69
29	S 11+14.42, 28.47' R	TBC	414.50
30	S 11+23.86, 28.01' R	TBC	413.82
31	S 11+48.24, 32.80' R	TBC	413.43
32	S 11+81.33, 31.10' R	TBC	412.93

NOTES:

1. ALL TBC ELEVATIONS ARE ADJUSTED FOR RAMPS

TBC – TOP BACK CURB
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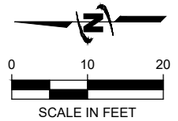
DETECTABLE WARNING PAD



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NO.	DESCRIPTION	BY	APP.	DATE

REVISION

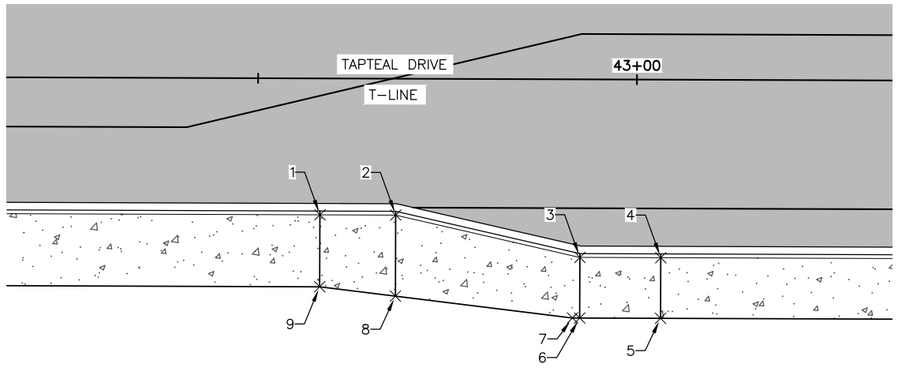
STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

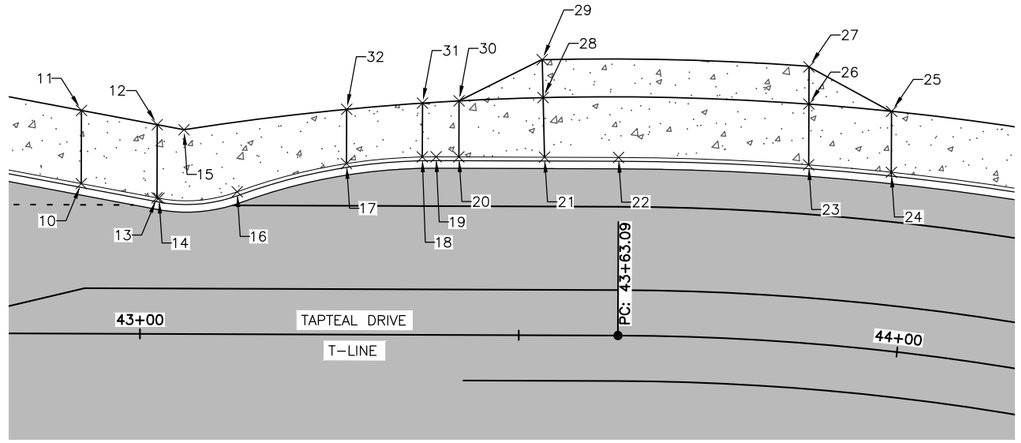
PAVING DETAILS

FILE : 07-21-030_PD-4
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/30/2022

SHEET NUMBER:
PD-4

Plot Date:8/30/2022 3:47 PM Plotted By: William Gillen
Date Created:8/30/2022 \\JUB.COM\C\CENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_PD-4.DWG



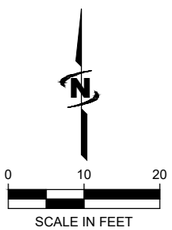


CURB RAMP DATA

POINT #	STATION / REFERENCE		ELEVATION
1	T 42+58.23, 18.00' R	TBC	412.43
2	T 42+68.17, 18.00' R	TBC	411.74
3	T 42+92.56, 23.50' R	TBC	411.15
4	T 43+03.23, 23.50' R	TBC	411.43
5	T 43+03.23, 31.50' R	BSW	411.59
6	T 42+92.56, 31.50' R	BSW	411.31
7	T 42+91.61, 31.50' R	BSW	411.83
8	T 42+68.23, 28.70' R	BSW	411.96
9	T 42+58.26, 27.47' R	BSW	412.62

NOTES:
1. ALL TBC ELEVATIONS ARE ADJUSTED FOR RAMPS

TBC – TOP BACK CURB
TBR – TOP BACK RAMP
BSW – BACK SIDEWALK
DETECTABLE WARNING PAD



CURB RAMP DATA

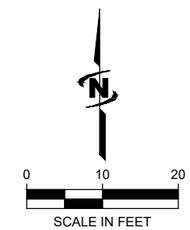
POINT #	STATION / REFERENCE		ELEVATION
10	T 42+92.19, 19.79' L	TBC	411.72
11	T 42+92.19, 29.46' L	BSW	411.92
12	T 43+02.19, 27.61' L	BSW	411.27
13	T 43+02.19, 17.95' L	TBC	411.07
14	T 43+02.45, 17.90' L	TBC	411.07
15	T 43+05.72, 26.96' L	BSW	411.69
16	T 43+12.77, 18.79' L	TBC	410.83
17	T 43+27.19, 22.57' L	TBC	410.49
18	T 43+37.19, 23.48' L	TBC	410.77
19	T 43+39.02, 23.50' L	TBC	410.72
20	T 43+42.01, 23.50' L	TBC	410.66
21	T 43+53.32, 23.50' L	TBC	409.95

NOTES:
1. ALL TBC ELEVATIONS ARE ADJUSTED FOR RAMPS

TBC – TOP BACK CURB
TBR – TOP BACK RAMP
BSW – BACK SIDEWALK
DETECTABLE WARNING PAD

CURB RAMP DATA

POINT #	STATION / REFERENCE		ELEVATION
22	T 43+63.09, 23.50' L	TBC	409.76
23	T 43+86.55, 23.50' L	TBC	409.29
24	T 43+96.79, 23.50' L	TBC	409.58
25	T 43+96.05, 31.50' L	BSW	409.74
26	T 43+86.04, 31.50' L	BSW	409.45
27	T 43+85.73, 36.39' L	BSW	409.55
28	T 43+53.10, 31.36' L	BSW	410.11
29	T 43+52.97, 36.36' L	BSW	410.21
30	T 43+42.01, 30.89' L	BSW	410.81
31	T 43+37.19, 30.58' L	BSW	410.91
32	T 43+27.19, 29.73' L	BSW	410.63



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NO.	DESCRIPTION	BY	APP.	DATE
	REVISION			

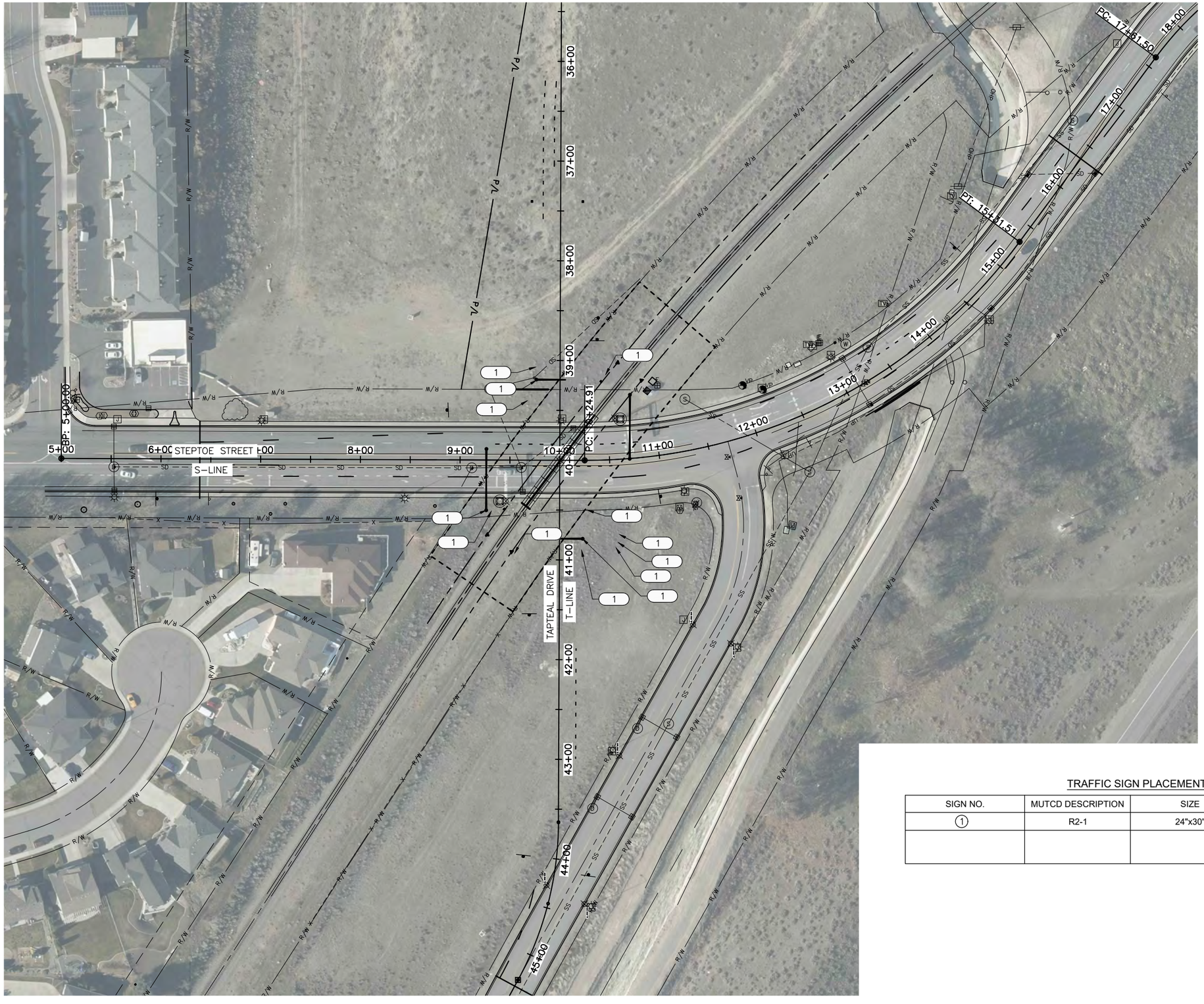
STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

PAVING DETAILS

FILE : 07-21-030_PD-5
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/30/2022

SHEET NUMBER:
PD-5

Plot Date:8/30/2022 3:47 PM Plotted By: William Gillen
Date Created:8/30/2022 \\JUB.COM\C-CENTRAL\CLIENTS\WA\YOUNG\ASSETMGMT\PROJECTS\07-21-030_STEPTOE\TAPTEAL\DESIGN\CAD\SHEET\07-21-030_PD-5.DWG



KEYED NOTES

1. CONSTRUCT SIGNAL/GATE DURING PHASE 1
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LEGEND

WORK AREA:

DIRECTION OF TRAFFIC FLOW:

TRAFFIC SAFETY DRUM

CONSTRUCTION SIGN

TRAFFIC SIGN PLACEMENT SCHEDULE

SIGN NO.	MUTCD DESCRIPTION	SIZE	DESCRIPTION	FINISH
(1)	R2-1	24"x30"	40 MPH	

HORZ 0 20 40

VERT 0 5 10

SCALE IN FEET

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	REVISION			

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

TRAFFIC CONTROL PLAN
PHASE 1 - INSTALL NEW SIGNALS & GATES

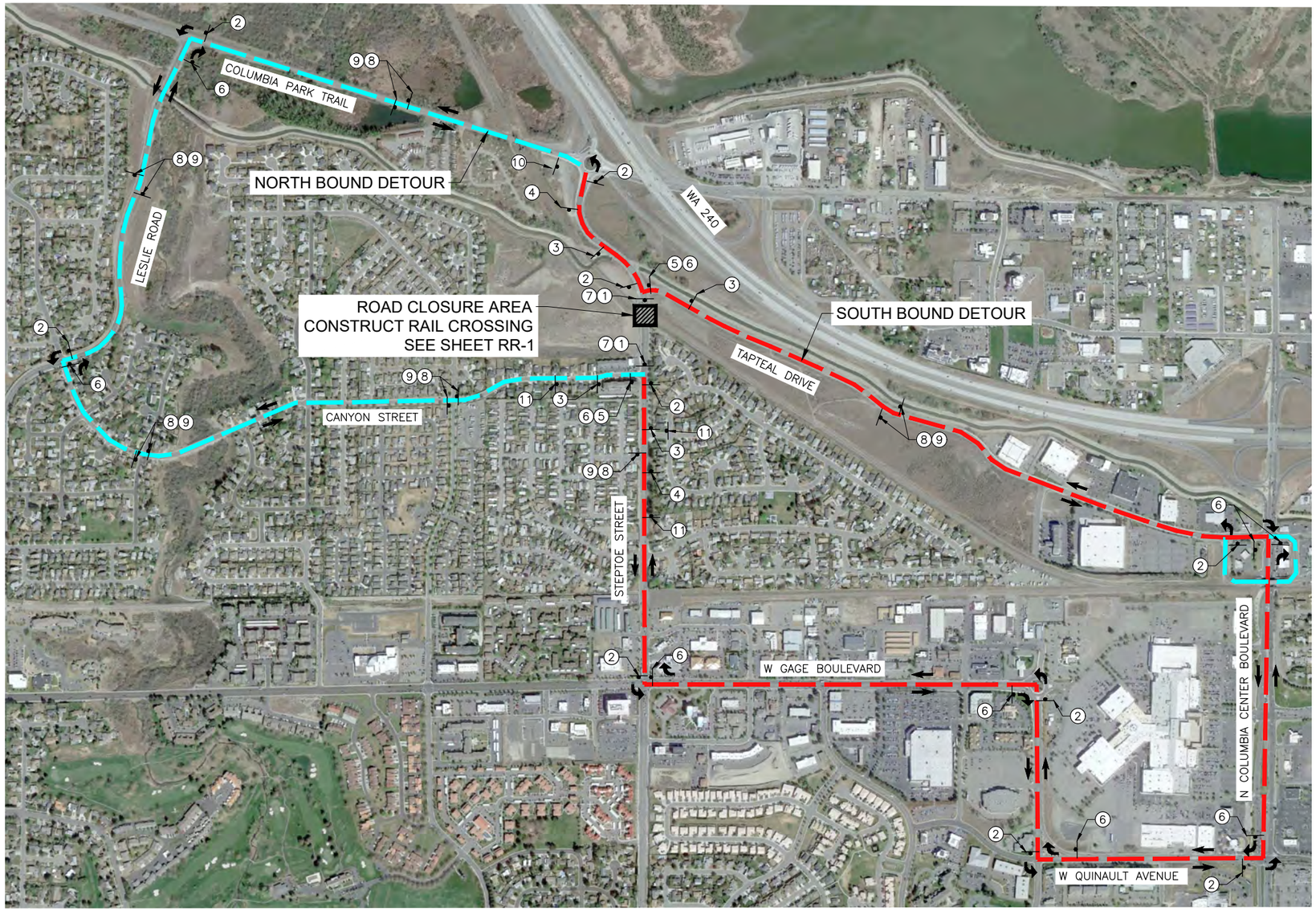
FILE : 07-21-030_TC-1
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD

ONE INCH
AT FULL SIZE. IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 8/29/2022

SHEET NUMBER:
TC-1

Plot Date:8/30/2022 3:48 PM Plotted By: William Gillan
Date Created:8/29/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_TC-1.DWG



SIGN SPACING = X (1)		
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

MINIMUM TAPER LENGTH = L (feet)							
LANE WIDTH (feet)	Posted Speed (mph)						
	25	30	35	40	45	50	55
10'	105	150	205	270	450	500	550
11'	115	165	225	295	495	550	605
12'	125	180	245	320	540	600	660

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/40	30	60
25/30	20	40

LEGEND

WORK AREA:

DIRECTION OF TRAFFIC FLOW:

CONSTRUCTION SIGN

N

0 500 1000

SCALE IN FEET

TRAFFIC SIGN PLACEMENT SCHEDULE

SIGN NO.	MUTCD DESCRIPTION	SIZE	DESCRIPTION	FINISH
①	TYPE III BARRICADE WITH R11-2L	48"x30"	BARRICADE	
②	M4-9L	30"x24"	DETOUR LEFT	
③	W20-2	36"x36"	DETOUR AHEAD	
④	W20-3	36"x36"	ROAD CLOSED	
⑤	R3-2	24"x24"	NO LEFT TURN	
⑥	M4-9R	24"x24"	DETOUR RIGHT	
⑦	M4-10L	48"x18"	BARRICADE	
⑧	M4-8	24"x12"	DETOUR	
⑨	M6-3	21"x15"	KEEP STRAIGHT	
⑩	M4-8A	24"x18"	END DETOUR	
⑪	W20-1	36"x36"	ROAD WORK	

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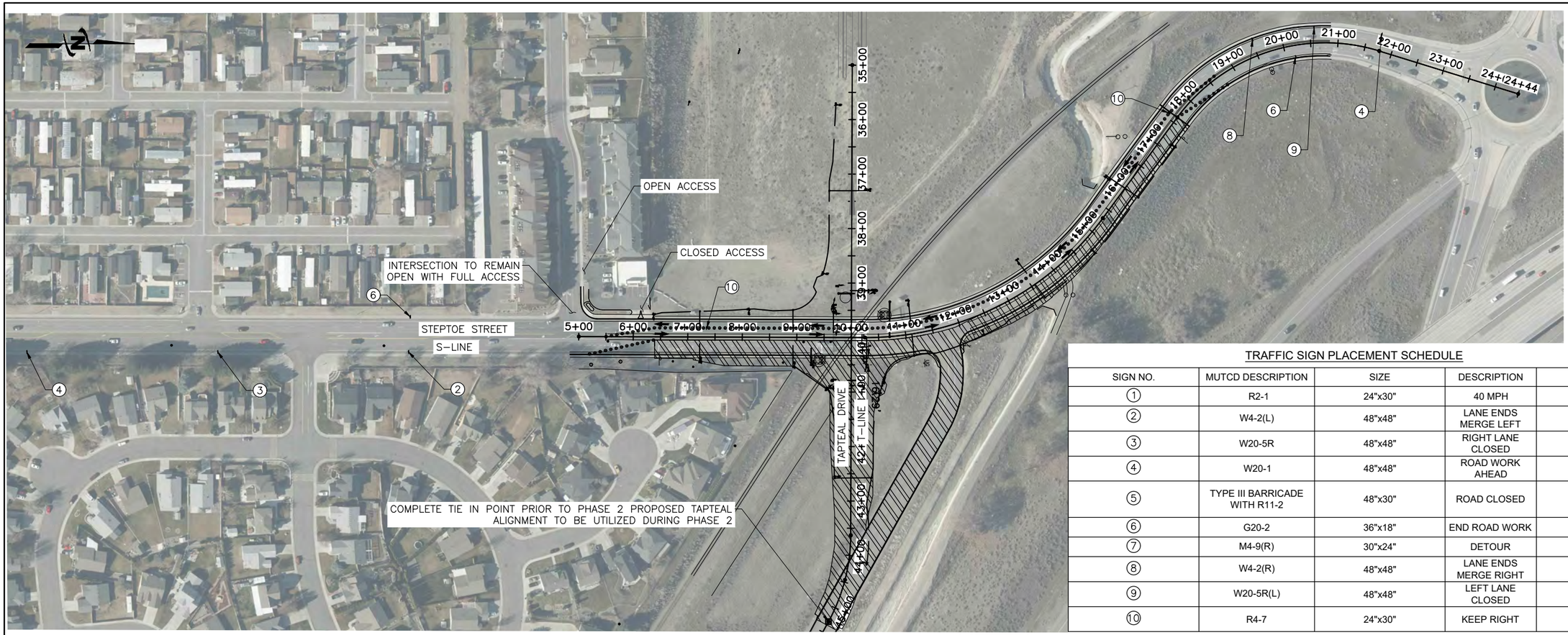
STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

TRAFFIC CONTROL PLAN
PHASE 2 CONSTRUCT RAIL CROSSING

FILE : 07-21-030_TC-5
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/30/2022

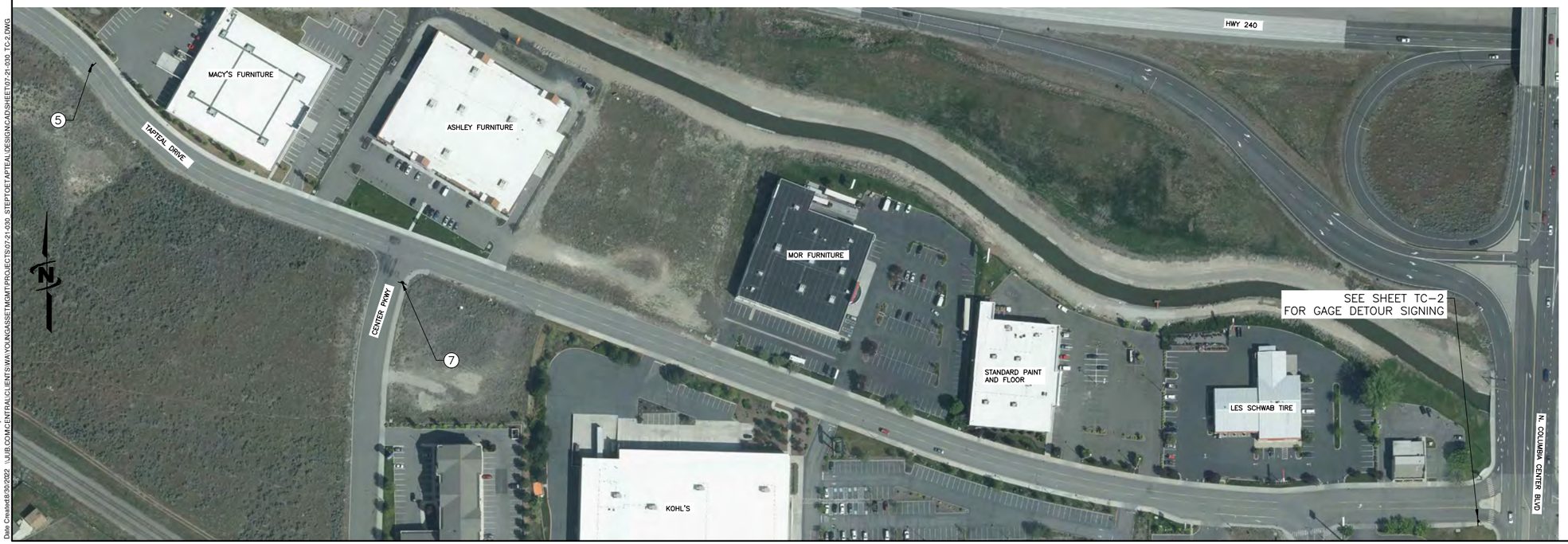
SHEET NUMBER:
TC-2

Plot Date:8/30/2022 3:49 PM Plotted By: William Gillen
Data Created8/30/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_TC-5.DWG



TRAFFIC SIGN PLACEMENT SCHEDULE

SIGN NO.	MUTCD DESCRIPTION	SIZE	DESCRIPTION	FINISH
①	R2-1	24"x30"	40 MPH	
②	W4-2(L)	48"x48"	LANE ENDS MERGE LEFT	
③	W20-5R	48"x48"	RIGHT LANE CLOSED	
④	W20-1	48"x48"	ROAD WORK AHEAD	
⑤	TYPE III BARRICADE WITH R11-2	48"x30"	ROAD CLOSED	
⑥	G20-2	36"x18"	END ROAD WORK	
⑦	M4-9(R)	30"x24"	DETOUR	
⑧	W4-2(R)	48"x48"	LANE ENDS MERGE RIGHT	
⑨	W20-5R(L)	48"x48"	LEFT LANE CLOSED	
⑩	R4-7	24"x30"	KEEP RIGHT	



LEGEND

WORK AREA:

DIRECTION OF TRAFFIC FLOW:

TRAFFIC SAFETY DRUM ⊗

CONSTRUCTION SIGN

0 100 200

SCALE IN FEET

GENERAL NOTES:

1. DRUMS ON WORK AREA BOUNDARY NOT SHOWN FOR CLARITY

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STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

TRAFFIC CONTROL PLAN
PHASE 3 - CONSTRUCT WEST SIDE

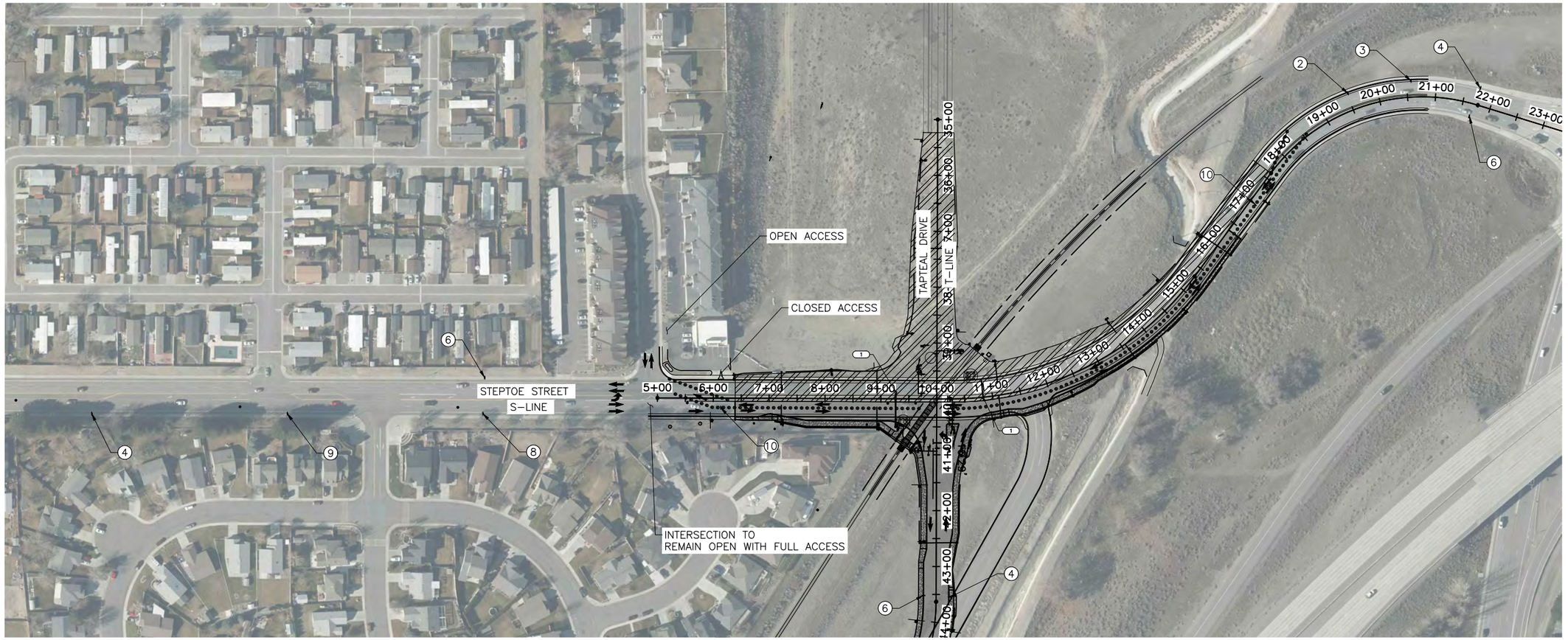
FILE : 07-21-030_TC-2
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD

ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 8/30/2022

SHEET NUMBER:
TC-3

Plot Date:8/30/2022 3:49 PM Plotted By: William Gillen
Date Created:8/30/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNG\ASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_TC-2.DWG



TRAFFIC SIGN PLACEMENT SCHEDULE

SIGN NO.	MUTCD DESCRIPTION	SIZE	DESCRIPTION	FINISH
①	R2-1	24"x30"	40 MPH	
②	W4-2(L)	48"x48"	LANE ENDS MERGE LEFT	
③	W20-5R	48"x48"	RIGHT LANE CLOSED	
④	W20-1	48"x48"	ROAD WORK AHEAD	
⑤	TYPE III BARRICADE WITH R11-2	48"x30"	ROAD CLOSED	
⑥	G20-2	36"x18"	END ROAD WORK	
⑦	M4-9(R)	30"x24"	DETOUR	
⑧	W4-2(R)	48"x48"	LANE ENDS MERGE RIGHT	
⑨	W20-5R(L)	48"x48"	LEFT LANE CLOSED	
⑩	R4-7	24"x30"	KEEP RIGHT	

KEYED NOTES

(1) CONSTRUCT SIGNAL/GATE DURING PHASE 3

LEGEND

WORK AREA:

DIRECTION OF TRAFFIC FLOW:

TRAFFIC SAFETY DRUM

CONSTRUCTION SIGN

N

0 100 200

SCALE IN FEET

GENERAL NOTES:

1. DRUMS ON WORK AREA BOUNDARY NOT SHOWN FOR CLARITY

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NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

TRAFFIC CONTROL PLAN
PHASE 4 - CONSTRUCT EAST SIDE

FILE : 07-21-030_TC-3
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/30/2022

SHEET NUMBER:
TC-4

Plot Date:8/30/2022 3:49 PM Plotted By: William Gillen
Date Created:8/30/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNG\ASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_TC-3.DWG

KEYED NOTES

1. ACTIVATE NEW SIGNALS
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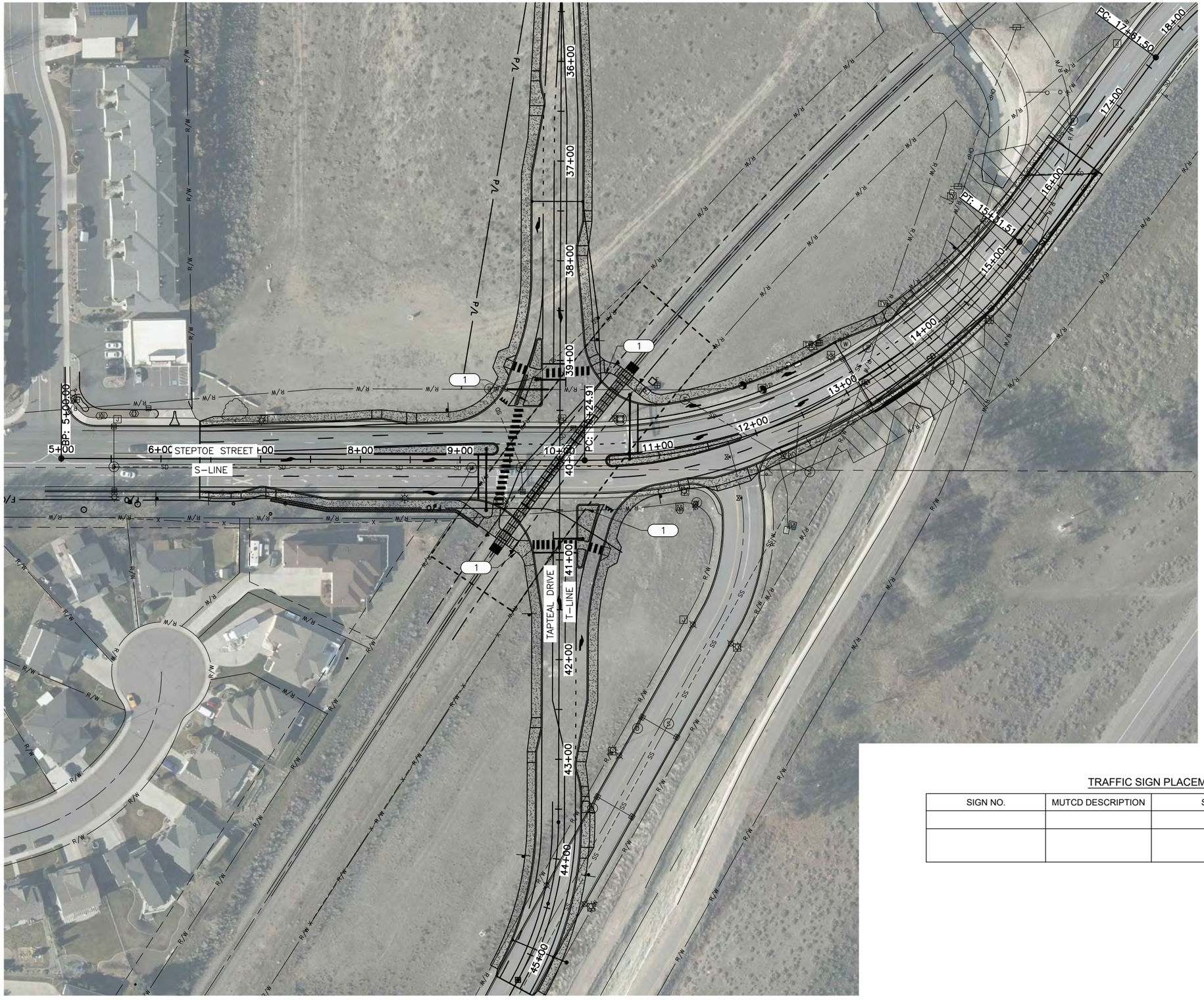

TRAFFIC SIGN PLACEMENT SCHEDULE

SIGN NO.	MUTCD DESCRIPTION	SIZE	DESCRIPTION	FINISH

HORZ 0 20 40
VERT 0 5 10
SCALE IN FEET

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	REVISION			

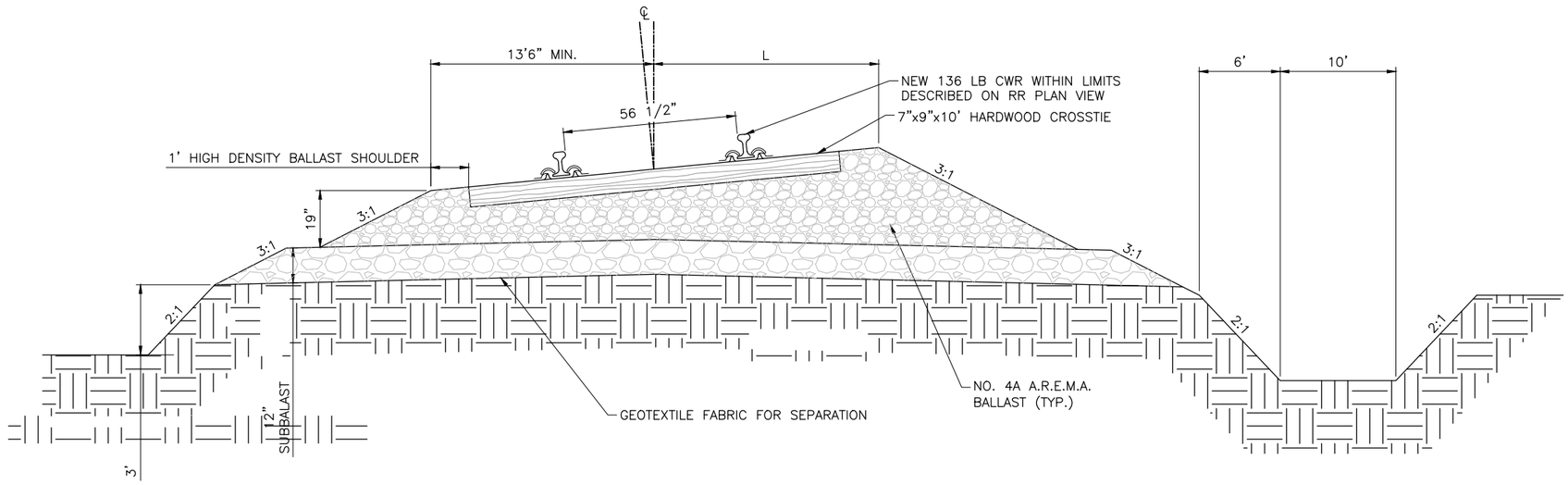
STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

TRAFFIC CONTROL PLAN
PHASE 5 - ACTIVATE SIGNALS

FILE : 07-21-030_TC-4
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/29/2022

SHEET NUMBER:
TC-5

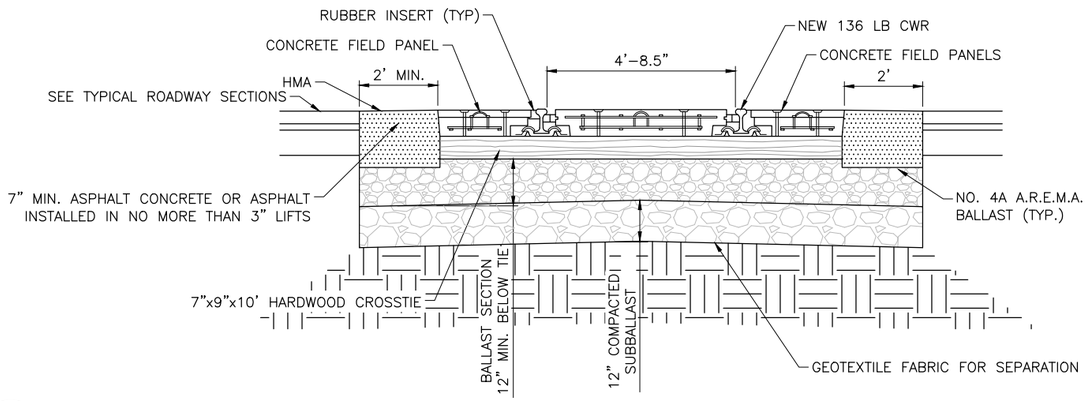
Plot Date:8/30/2022 3:50 PM Plotted By: William Gillen
Date Created:8/29/2022 \\JUB.COM\CENTRAL\CLIENTS\WA\YOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_TC-4.DWG



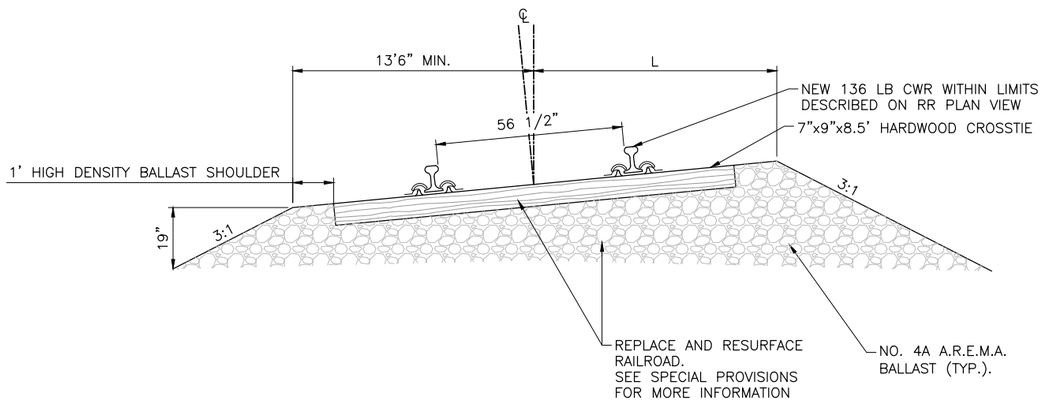
E (IN.)	L MIN.
0	13'–6"
1	14'–0"
2	14'–6"
3	15'–0"
4	15'–6"
5 OR OVER	16'–0"

NOTES:
1. SLOPES SHOWN FOR BANKS IN CUTS AND ON FILLS SHALL BE CONSIDERED STANDARD AND GENERALLY USED, BUT MAY BE MODIFIED AS REQUIRED BY LOCAL CONDITIONS AND CHARACTER OF MATERIAL
2. BALLAST MUST BE EQUALIZED IN ADVANCE OF DRESSING SO THAT FINAL SECTION WILL CONFORM TO SLOPE REQUIREMENTS AND CHARACTER OF MATERIAL
3. SUBBALLAST SHALL ONLY BE REPLACED FOR 20 TRACK FEET BEYOND END OF CROSSING PANELS

1 TYPICAL RAILROAD SECTION
SCALE:NTS



2 TYPICAL RAILROAD SECTION THROUGH RAILROAD CROSSING
SCALE:NTS



E (IN.)	L MIN.
0	13'–6"
1	14'–0"
2	14'–6"
3	15'–0"
4	15'–6"
5 OR OVER	16'–0"

NOTES:
1. SLOPES SHOWN FOR BANKS IN CUTS AND ON FILLS SHALL BE CONSIDERED STANDARD AND GENERALLY USED, BUT MAY BE MODIFIED AS REQUIRED BY LOCAL CONDITIONS AND CHARACTER OF MATERIAL
2. BALLAST MUST BE EQUALIZED IN ADVANCE OF DRESSING SO THAT FINAL SECTION WILL CONFORM TO SLOPE REQUIREMENTS AND CHARACTER OF MATERIAL
3. SUBBALLAST SHALL ONLY BE REPLACED FOR 20 TRACK FEET BEYOND END OF CROSSING PANELS

3 TYPICAL RAILROAD SECTION FOR RESURFACING OUTSIDE FULL TRACK RECONSTRUCTION
SCALE:NTS

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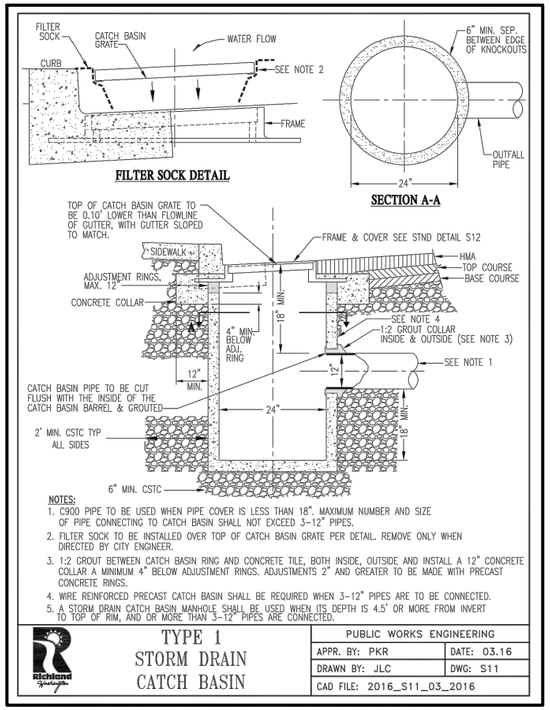
STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

DETAILS

FILE : 07-21-030_D-1
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 7/28/2022

SHEET NUMBER:
D-1

Plot Date:8/30/2022 4:25 PM Plotted By: William Gillen
Date Created:7/28/2022 \\JUB.COM\CENTRAL\CLIENTS\WAYOUNG\ASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_D-1.DWG

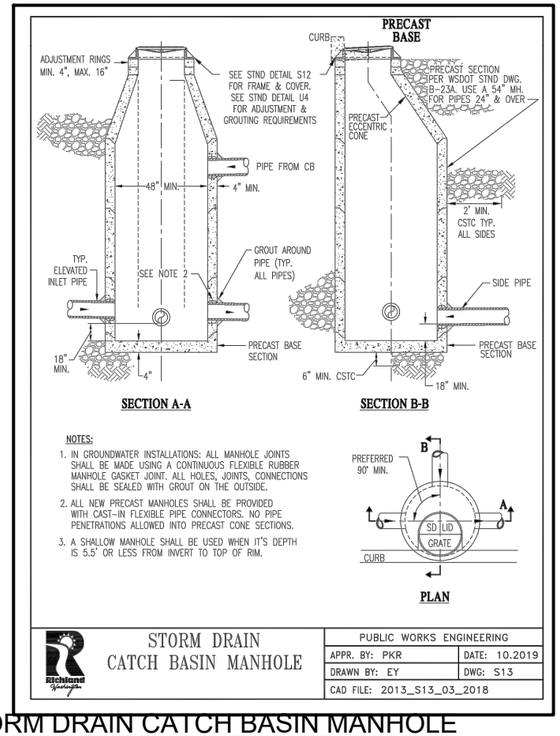


NOTES:

1. C900 PIPE TO BE USED WHEN PIPE COVER IS LESS THAN 18". MAXIMUM NUMBER AND SIZE OF PIPE CONNECTING TO CATCH BASIN SHALL NOT EXCEED 3–12" PIPES.
2. FILTER SOCK TO BE INSTALLED OVER TOP OF CATCH BASIN GRATE PER DETAIL. REMOVE ONLY WHEN DIRECTED BY CITY ENGINEER.
3. 1:2 GROUT BETWEEN CATCH BASIN RING AND CONCRETE TILE, BOTH INSIDE, OUTSIDE AND INSTALL A 12" CONCRETE COLLAR A MINIMUM 4" BELOW ADJUSTMENT RINGS. ADJUSTMENTS 2" AND GREATER TO BE MADE WITH PRECAST CONCRETE RINGS.
4. WIRE REINFORCED PRECAST CATCH BASIN SHALL BE REQUIRED WHEN 3–12" PIPES ARE TO BE CONNECTED.
5. A STORM DRAIN CATCH BASIN MANHOLE SHALL BE USED WHEN ITS DEPTH IS 4.5' OR MORE FROM INVERT TO TOP OF RIM, AND OR MORE THAN 3–12" PIPES ARE CONNECTED.

Richland Washington	TYPE 1 STORM DRAIN CATCH BASIN	PUBLIC WORKS ENGINEERING
		APPR. BY: PKR — DATE: 03.16
		DRAWN BY: JLC — DWG: S11
		CAD FILE: 2016_S11_03_2016

1 TYPE 1 STORM DRAIN CATCH BASIN
SCALE:NTS

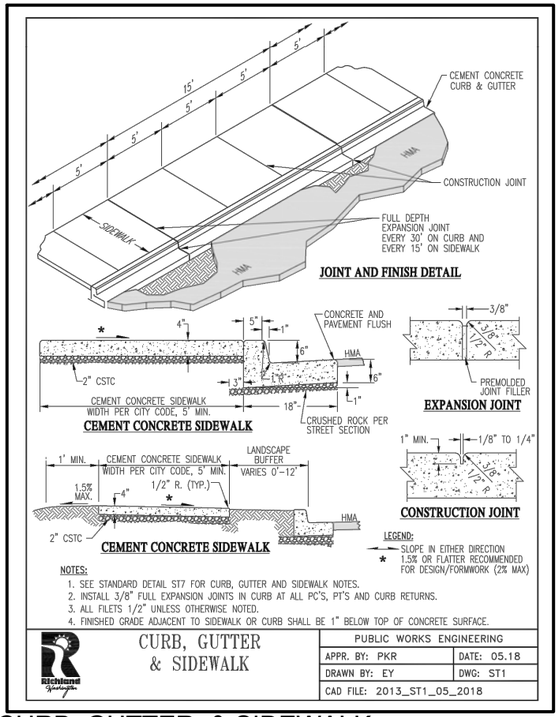


NOTES:

1. IN GROUNDWATER INSTALLATIONS: ALL MANHOLE JOINTS SHALL BE MADE USING A CONTINUOUS FLEXIBLE RUBBER MANHOLE GASKET JOINT. ALL HOLES, JOINTS, CONNECTIONS SHALL BE SEALED WITH GROUT ON THE OUTSIDE.
2. ALL NEW PRECAST MANHOLES SHALL BE PROVIDED WITH CAST-IN FLEXIBLE PIPE CONNECTORS. NO PIPE PENETRATIONS ALLOWED INTO PRECAST CONE SECTIONS.
3. A SHALLOW MANHOLE SHALL BE USED WHEN IT'S DEPTH IS 5.5' OR LESS FROM INVERT TO TOP OF RIM.

Richland Washington	STORM DRAIN CATCH BASIN MANHOLE	PUBLIC WORKS ENGINEERING
		APPR. BY: PKR — DATE: 10.2019
		DRAWN BY: EY — DWG: S13
		CAD FILE: 2013_S13_03_2018

2 STORM DRAIN CATCH BASIN MANHOLE
SCALE:NTS



NOTES:

1. SEE STANDARD DETAIL ST7 FOR CURB, GUTTER AND SIDEWALK NOTES.
2. INSTALL 3/8" FULL EXPANSION JOINTS IN CURB AT ALL PC'S, PT'S AND CURB RETURNS.
3. ALL FILETS 1/2" UNLESS OTHERWISE NOTED.
4. FINISHED GRADE ADJACENT TO SIDEWALK OR CURB SHALL BE 1" BELOW TOP OF CONCRETE SURFACE.

Richland Washington	CURB, GUTTER & SIDEWALK	PUBLIC WORKS ENGINEERING
		APPR. BY: PKR — DATE: 05.18
		DRAWN BY: EY — DWG: ST1
		CAD FILE: 2013_ST1_05_2018

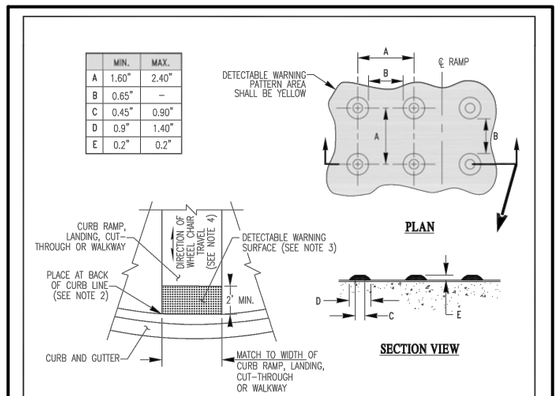
3 CURB, GUTTER, & SIDEWALK
SCALE:NTS

CONSTRUCTION NOTES FOR PEDESTRIAN FACILITIES

1. ASPHALT PATCHING – SAWCUT A MINIMUM OF 24" OF ASPHALT BEYOND THE FACE OF NEW GUTTER, REMOVE ALL DEBRIS AND ADD CRUSHED SURFACE TOP COURSE (CSTC) AS NEEDED. COMPACT AREA, PLACE HMA AND COMPACT AS REQUIRED.
2. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI FOR SIDEWALKS. CONCRETE FOR CURB, GUTTER AND DRIVEWAYS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI.
3. CONTRACTOR SHALL CALL FOR CITY INSPECTION PRIOR TO CUTTING AND/OR REMOVING CURB, GUTTER, AND SIDEWALK. THE INSPECTOR WILL MARK AREA TO BE CUT OR REMOVED. CONTRACTOR'S PRESENCE IS ADVISABLE.
4. CONTRACTOR SHALL CALL FOR INSPECTION OF ALL FORMS PRIOR TO POURING CONCRETE FOR CURB, GUTTER, SIDEWALK AND DRIVEWAYS. ALL EXPANSION JOINTS SHALL BE IN PLACE AT TIME OF INSPECTION. ("WET SET" MASTIC IS NOT ALLOWED)
5. THE INSPECTOR SHALL CHECK ALL JOINT LOCATIONS. ALL EXPANSION JOINTS SHALL BE MARKED WITH AN "M".
6. CONTRACTOR SHALL NOT POUR ANY CONCRETE UNTIL ALL JOINTS HAVE BEEN CHECKED AND GIVEN VERBAL OR WRITTEN APPROVAL BY INSPECTOR.
7. THE FACE OF CURB SHALL BE STAMPED AT ALL UTILITY CROSSINGS, MAIN LINES AND SERVICE LINES AS FOLLOWS: "S"–SANITARY SEWER, "W"–WATER, "I"–IRRIGATION, "C"–CONDUITS
8. CURB, GUTTER, AND SIDEWALK SURFACES SHALL HAVE A LIGHT BROOM FINISH. SIDEWALK SHALL BE BROOMED PERPENDICULAR TO CURB LINE IN A UNIFORM AND CONSISTENT MANNER.
9. A MINIMUM OF 2" OF CSTC SHALL BE PLACED AND COMPACTED UNDER ALL CURB, GUTTER AND SIDEWALK.
10. JOINT SPACING SHALL BE NO LESS THAN 2.5' AND NO GREATER THAN 5'.
11. SIDEWALKS SHALL BE A MINIMUM OF 5 FEET WIDE. IN COMMERCIAL ZONED C–2, C–3, AND CBD AREAS THE SIDEWALKS SHALL BE 8 FEET WIDE.
12. WHEN UTILITY METERS, VAULTS, TRANSFORMERS, ETC. EXIST IN THE AREA BETWEEN THE LOT LINE AND THE DRIVEWAY, THE DRIVEWAY MUST BE CONSTRUCTED AT LEAST 10' FROM THE LOT LINE.
13. IF A CONCRETE DRIVEWAY IS TO BE EXTENDED PAST THE R/W LINE A 3/8" MASTIC EXPANSION JOINT SHALL BE INSTALLED FULL LENGTH OF DRIVEWAY AND FULL DEPTH OF DRIVEWAY AT THE BACK OF SIDEWALK. DRIVEWAY SHALL LINE UP WITH THE BOTTOM OF THE DRIVEWAY TRANSITIONS IN THE CURB AND GUTTER.
14. MAINTAIN 4' MINIMUM CLEARANCE FROM ANY OBSTRUCTION ON SIDEWALK AND SIDEWALK RAMP.
15. AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES, OR OTHER OBSTRUCTIONS IN FRONT OF DRIVEWAY ENTRANCES.
16. AT NO TIME SHALL ANY SLOPES EXCEED CURRENT ADA STANDARDS.

Richland Washington	CURB, GUTTER & SIDEWALK NOTES	PUBLIC WORKS ENGINEERING
		APPR. BY: PKR — DATE: 09.13
		DRAWN BY: LD — DWG: ST7
		CAD FILE: 2013_ST7_09_2013

4 CURB, GUTTER, & SIDEWALK NOTES
SCALE:NTS

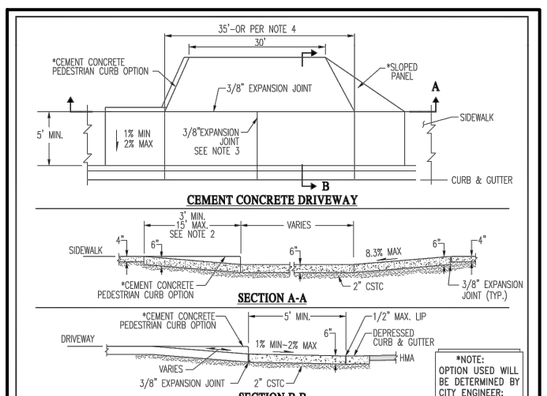


NOTES:

1. THE DETECTABLE WARNING SURFACE SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP (EXCLUSIVE OF FLARES) OR THE LANDING.
2. THE EDGE OF THE DETECTABLE WARNING SURFACE SHALL BE PLACED AT THE BACK OF THE CURB. CURB SHALL BE FORMED TO PROVIDE A STRAIGHT LINE ALONG THE BACK OF CURB ADJACENT TO THE WARNING PATTERN.
3. THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED TO BE PERPENDICULAR TO THE GRADE BREAK AT THE BACK OF CURB.
4. THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED TO BE PARALLEL TO THE DIRECTION OF TRAVEL.
5. SEE STANDARD PLANS FOR SIDEWALK AND CURB RAMP DETAILS.
6. IF CURB AND GUTTER ARE NOT PRESENT, SUCH AS A SHARED-USE PATH CONNECTION, THE DETECTABLE WARNING SURFACE SHALL BE PLACED AT THE PAVEMENT EDGE.

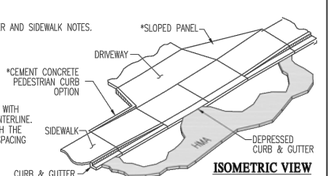
Richland Washington	DETECTABLE WARNING SURFACE	PUBLIC WORKS ENGINEERING
		APPR. BY: PKR — DATE: 01.16
		DRAWN BY: LD — DWG: ST21
		CAD FILE: 2013_ST21_01_2016

5 DETECTABLE WARNING SURFACE
SCALE:NTS



NOTES:

1. SEE STANDARD DETAIL ST7 FOR CURB, GUTTER AND SIDEWALK NOTES.
2. THE CURB RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15' TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES.
3. WHEN THE DRIVEWAY WIDTH EXCEEDS 15', CONSTRUCT A FULL DEPTH EXPANSION JOINT WITH 3/8" JOINT FILLER ALONG THE DRIVEWAY CENTERLINE. CONSTRUCT EXPANSION JOINTS PARALLEL WITH THE CENTERLINE AS REQUIRED AT 15' MAXIMUM SPACING WHEN DRIVEWAY WIDTHS EXCEED 30'.
4. SEE RMC 12.04.095 THRU 12.04.120 FOR ADDITIONAL DETAILS



Richland Washington	STANDARD NON-RESIDENTIAL DRIVEWAY (TYPE 1)	PUBLIC WORKS ENGINEERING
		APPR. BY: PKR — DATE: 06.19
		DRAWN BY: EY — DWG: ST2A
		CAD FILE: 2013_ST2A_06_2019

6 STANDARD NON-RESEDENTIAL DRIVEWAY
SCALE:NTS

J-U-B ENGINEERS, INC.
J-U-B ENGINEERS, INC.
2810 W. Clearwater Ave.
Suite 201
Kennewick, WA 99336
Phone: 509.783.2144
www.jub.com

NO.	DESCRIPTION	BY	APPR.	DATE
	REVISION			

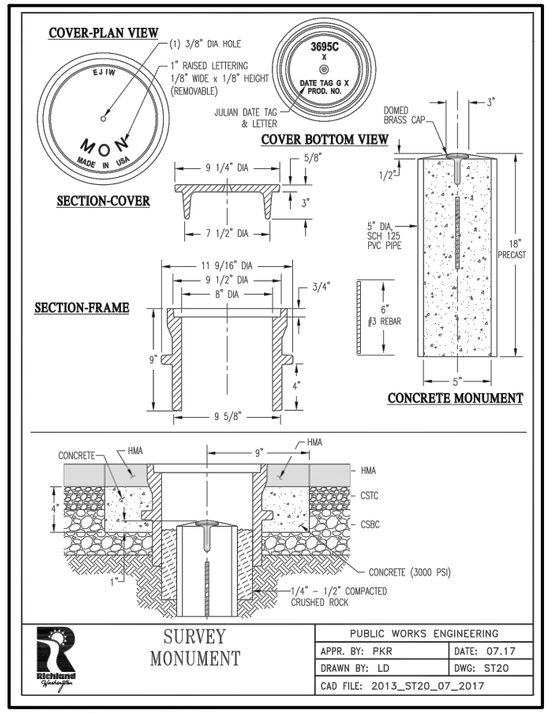
STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

DETAILS

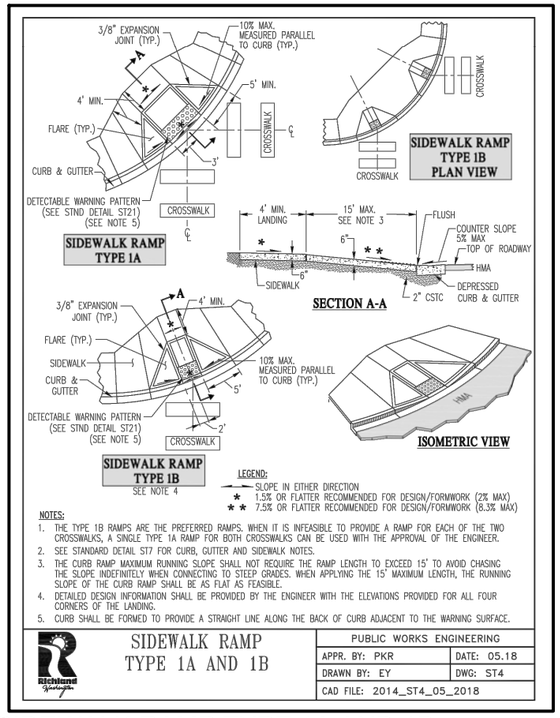
FILE : 07-21-030_D-2
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 8/30/2022

SHEET NUMBER:
D-2

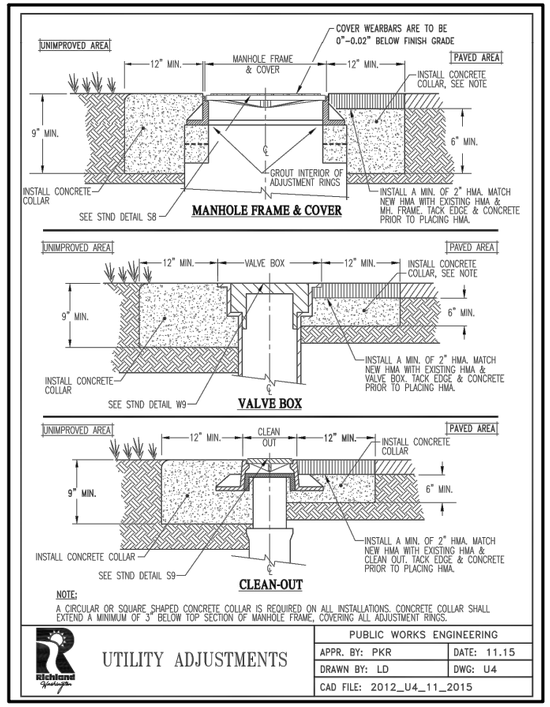
Plot Date:8/30/2022 4:25 PM, Plotted By: William Gillen
Date Created:8/30/2022 ...\JUB.COM\CENTRAL\CLIENTS\WAYOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEALDESIGN\CAD\SHEET\07-21-030_D-2.DWG



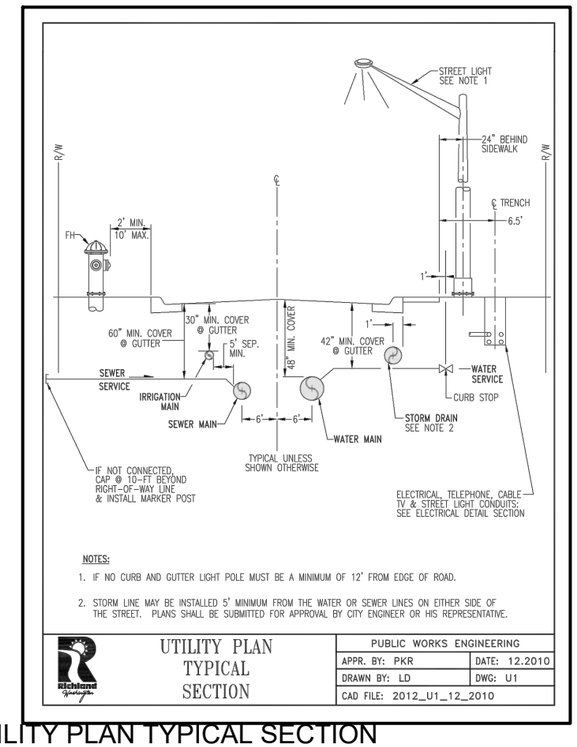
1 SURVEY MONUMENT
SCALE:NTS



2 SIDEWALK RAMP TYPE 1A AND 1B
SCALE:NTS



3 UTILITY ADJUSTMENTS
SCALE:NTS



4 UTILITY PLAN TYPICAL SECTION
SCALE:NTS

1 DETAIL X
SCALE:NTS

1 DETAIL X
SCALE:NTS

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NO.	DESCRIPTION	BY	APPR.	DATE
	REVISION			

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

DETAILS

FILE :	07-21-030_D-3
JUB PROJ. # :	07-21-030
DRAWN BY:	WG
DESIGN BY:	WG
CHECKED BY:	RD

ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 8/30/2022

SHEET NUMBER:
D-3

Plot Date:8/30/2022 4:25 PM Plotted By: William Gillen
Date Created:8/30/2022 \\JUB.COM\CENTRAL\CLIENTS\WAYOU\NGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_D-3.DWG

1 DETAIL X
SCALE:NTS

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2810 W. Clearwater Ave.
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NO.	DESCRIPTION	BY	APP.	DATE

REVISION

STEPTOE AND TAPTEAL INTERSECTION
YOUNG ASSET MANAGMENT

DETAILS

FILE : 07-21-030_D-4
JUB PROJ. # : 07-21-030
DRAWN BY: WG
DESIGN BY: WG
CHECKED BY: RD

ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 3/9/2022

SHEET NUMBER:
D-4

Plot Date:8/30/2022 4:26 PM Plotted By: William Gillen
Date Created:3/9/2022 \\JUB.COM\CENTRAL\CLIENTS\WAYOUNGASSETMGMT\PROJECTS\07-21-030_STEPTOETAPTEAL\DESIGN\CAD\SHEET\07-21-030_D-4.DWG